

# The National Locksmith®

February 1998  
Volume 69, No. 2

**CODES**  
GM 10 CUT  
6000-6999  
page 128

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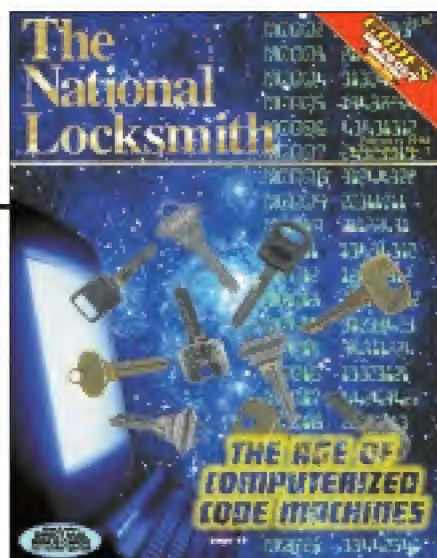
**THE AGE OF  
COMPUTERIZED  
CODE MACHINES**

Don't miss  
DIRECT MAIL  
BONUS CARDS  
see center spread

page 18



## On The Cover...



Increased speed, flexibility and accuracy make today's computerized code machines well worth the investment.

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you wish to read



# COMMENTARY



<http://www.TheNationalLocksmith.com>  
User name: national User ID: G5fh84

## Transponders: Will they hurt or help? Plus Tom Gillespie, CML joins us!

**T**his month I have two important pieces of news for you, and both of them relate to automotive locksmithing. Both stories I have to tell you are good news, and both will help you make a great deal more money with cars.

First, let's talk about transponders. Some of the most popular cars in the world are now flooding the market equipped with transponders. These models include such favorites as Chrysler Sebring and Concorde; Dodge Intrepid; Toyota Camry; Ford Explorer and Taurus; Honda Accord, plus many more.

Some of these cars can easily be worked on by locksmiths who know what to do. Others are tricky. In the coming year, we will be publishing a lot of information about transponders right here in The National Locksmith. But there is so much information that we can't possibly cover it all at once in the magazine.

That's why I am announcing a critical new book called The National Locksmith Guide to TRANSPONDERS by Michael Hyde, author of the famous AutoSmart. This new book runs over 300 pages and gives you every detail we know about transponders and making keys on every vehicle.

One of two things is going to happen because of transponders. The first possibility is that you don't equip yourself with knowledge and eventually your automotive business will fade away. The second possibility is that you arm yourself with transponder information and you end up making more money than ever from automotive locksmithing.

Cars will now require a very high level of skill to service. But instead of griping, we should applaud, because the price we charge for such service also increases dramatically. When VATS first came out locksmiths worried. But The National Locksmith quickly showed you how to work with that system and the result was a higher priced service. The same is now true, only more so, with transponders. We didn't choose this. It is being

shoved down our throats. Nevertheless, it offers us huge opportunity to profit. See the ad on pages 36-37 for more details on how you can come away from this situation with a lot more money in your pocket.

**T**he second news item I have for you is also really exciting. Tom Gillespie CML, a senior automotive technical expert, formerly of Pro-Lok, has just joined the staff of The National Locksmith.

That's great news for all readers of the magazine because Tom will join writer Mike Hyde in delivering to you the best automotive locksmithing coverage ever imaginable!

Tom is now a full time staff member for The National Locksmith and he will be writing monthly on the hottest automotive topics designed to help you make more profits from cars.

As always, we produce more technical information on cars than the pages of this magazine can hold. That's why we founded The National Locksmith Automobile Association (NLAA). Tom will also contribute greatly to the NLAA. Members of both will come out ahead. Welcome Tom!



*Marc Goldberg*

### Join our free E-mail list!

Receive locksmith info by E-Mail  
Write us at: NATLOCK@aol.com

**Marc Goldberg**  
Publisher

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# Mango's Message

## KNOCK! KNOCK! WHO'S THERE?

A visitor approaches your front door and with the press of a button, your message is heard: "I can't answer now, but please press the Door Butler Security System and leave a message." This leaves you the option to speak over the intercom — or to open the door. If you're home or not, you can leave them guessing with the Door Butler.

What you just read is the message on a promotional brochure that I received from PSI Security, Inc., promoting a product called the Door Butler Smart Doorbell Security System. I first heard about this product from Jake Jakubowski who received some advertising material about this product and was a bit skeptical about the claims.

According to PSI, the Door Butler is "America's Most Cost Effective and Innovative Security System — Providing Recorded Messages, Alarm System Announcement and more..."

Is that so?

The Door Butler is a surface mounted unit that provides a message feature, two way intercom and a door contact alarm system with switchable chime option. The Door Butler is basically a recordable intercom. If you are not home when someone visits, a message can be left by the visiting party which can be retrieved at a later time. Or if you are home, the visitor can be screened before opening the door.



PSI was soliciting locksmiths to become dealers of the Door Butler, so I posed as a potential locksmith dealer interested in carrying this product. The unit itself is a bit hoaky looking, featuring a ribbon cable that wraps around the outside of the door going from the exterior unit to the interior unit, but the claims didn't seem any more inflated than usual. What raised the immediate red flag of suspicion, however, was the following letter and order form I received:

PSI Security, Inc.  
21 S. Oxford St.  
Indianapolis, IN 46201  
1(800) DOOR-567 or  
(317) 972-4873

August 6, 1997

ABC Locksmith  
1533 Burgundy Parkway  
Streamwood, IL 60107

Dear Greg,

Thank you for your response to our telephone contact. The Door Butler is an important product sold exclusively through today's locksmith. One might think of the Door Butler as a "smart doorbell." It provides an outgoing message, stores incoming messages, and functions as an intercom, door chime, doorbell and fully expandable wireless alarm. No other product literally "sells itself" to every visitor, friend and family member each time they walk up to the door.

The Door Butler is an essential product for today's home and PSI Security is committed to its success. A substantial television ad campaign is prepared for regional and national release. This program is designed for the sales and advantage of you, the locksmith. This nine minute video program will show several of the prepared commercials. **Remember: this advertising program is at no cost to our dealers.**

The Door Butler can be retailed at \$99.00 or less. The unit cost to our dealers is \$51.41, shipping and handling is \$3.67. Over half the people buying units frequently **desire complete installation, requiring mounting next to the door casing.** This can result in a doubling of your profit. All that's required for you to become a locksmith dealer for the Door Butler is an initial purchase of just three units.

Please review the enclosed video, sample retail sales brochure and dealer sheet.

We will be **closing out** our dealer placement in your area on August 19, 1997, as per our **18 month Locksmith Exclusive** program. Call us at 1(800) DOOR-567 - that's 1(800) 366-7576. Ask for ext. 11 to take advantage of our Call-In Special.

Yours truly,  
Lewis Ladd  
Lewis Ladd  
Marketing Director  
PSI Security, Inc.

"If You Sell Deadbolts - You'll Sell Door Butler"  
"Permanent Installation Next to door Casing - Can Be Provided by Local  
Locksmith for the Door Butler Smart Doorbell System"

Continued on  
page 8.

*Greg Mango*

Greg Mango  
Editor







Continued from page 6

**PSI Security, Inc.**  
21 S Oxford St.  
Indianapolis, IN  
46201

## Door Butler Dealer Sheet

### 3 - Dealer Start-Up Packages

Locksmiths responding at this time will receive a  
**2% Call-In Discount.**

Door Butler Unit 1 -      \$51.41 per unit  
                                     \$3.67 shipping & handling  
                                     \$55.08 total

Display Stand -      \$27.67 Total - shipping & handling included  
(with mute unit)

Select Dealer Package	S&H Include.	price	Price w/2% Call-In Discount
*A 3 Units	\$165.24	\$161.94	
*B 3 Units + Display Stand	\$192.88	\$189.02	
*C 3 Units + FREE display Std	\$220.32	\$215.91	

Locksmith Dealers Receive An  
**18 Month Exclusive**

Credit Card Users Call-In Now To Order **1(800) Door-567**  
**366-7567, ext. 11**

- MasterCard, Visa, American Express and Discover Card -

For Payment by Check - Mail To:      **PSI Security, Inc.**  
21 S. Oxford Street  
Indianapolis, IN 46201

check # \_\_\_\_\_      **do not write**

check one box  
\*A ☐ \*B ☐ \*C ☐

Co. Name: \_\_\_\_\_      State Retail ID #: \_\_\_\_\_  
Address: \_\_\_\_\_      Sales Floor ( ) Mobile ( )  
City: \_\_\_\_\_      No. Years in business: \_\_\_\_\_  
State: \_\_\_\_\_ Zip Code: \_\_\_\_\_      Name of Owner: \_\_\_\_\_  
Phone: ( ) \_\_\_\_\_

For Additional Information Please Call 1(800) Door 567, ask for ext. 11

Let's take a closer look at the letter. The second sentence states that "The Door Butler is an important product sold exclusively through today's locksmith." Well, that's news to me, or else I'm missing out.

Second, whenever a company promises substantial television ad campaigns on both a regional and national level, it is usually full of beans and should always be cause for concern.

First of all, if a company did have the financial backing to do regional and national advertising for a product, it would not be promoting it exclusively through the locksmith industry. Why? This industry is simply far too small to support the return necessary to warrant both a regional and national advertising campaign.

Yes, PSI Security did supply a slickly produced video representing a sample of the commercials it intends to run, touting the virtues and capabilities of the Door Butler and why every home in America will want one. But, with a Hi-8 video camera in the hands of a skilled photographer, and

the cheap cost of producing VHS tapes, anyone can create a rather professional looking presentation.

Wanting to know what I was getting before I made my \$161.94 investment (including my 2% Call-In Discount), I contacted Lewis Ladd, Marketing Director at PSI Security, Inc. I expressed my concerns that I had never heard of, or have seen, the Door Butler, and even though I was sure it was a sound investment, I asked if he would send me a sample for review.

Ladd promised to send a Door Butler ASAP.

A month or so went by and no Door Butler.

I contacted Ladd once again, reminded him of our last conversation, and he once again promised to send a Door Butler ASAP.

Another month or so went by and still no Door Butler.

I called Mr. Ladd still again, only this time I was not an interested dealer, I was a reporter for a locksmith magazine with a number of questions awaiting his response. I informed him that I was in fact the interested potential dealer for Door Butler whom he had promised to send a sample product for inspection before making my investment.



With that knowledge, Ladd's response was carefully thought-out, and his words selectively chosen. His whole tone and dialect was vastly different than in past conversations.

Ladd informed me that the company was in the process of making design changes to the Door Butler, and as soon as the updated version of the product was available, he would send me a sample for review.

Guess what? I'm still waiting.

As for the regional and national advertising campaign that PSI had put together promoting the Door Butler, Ladd said it would not start until all the dealers were in place. I could have told you that would be his response even before he said it.

I have no idea whether the Door Butler does or does not exist. I have never seen one nor have I ever witnessed a commercial promoting this product. However, if you should receive any promotional information regarding the Door Butler, I would proceed with caution. Don't be fooled by glossy brochures, slick video productions and unsubstantiated claims. It can all be produced rather inexpensively, and far too often is intended to mislead, misrepresent and deceive. Any reputable company will be glad to supply you with the information requested when expecting you to make an investment in its offerings. Those that don't should be avoided.

Like one wise philosopher once said: "If it smells like a fish, it probably is! **TNL**"



February 1998

# Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

## If You Can't, Don't

In response to the letter that was written by Jerry Jones, CRL, Missouri, we would like to make a few comments about his response to our letter "Who Not to Call When Your Safe is Locked-Up." It is apparent that Jerry went on the defensive when he read this. When we set out to write this letter it was not our intent to offend anyone or to cause any hard feelings, but apparently we struck a nerve.

We are a safe distributor. We deal in safes.

We were not looking to place blame. We were trying to make a point. Lots of people confuse Locksmiths and Safe Technicians. We were just saying that we should be honest in our trade and not accept a job we are not capable of doing.

Most safe manufacturer's do maintain 24-hour support lines. We also have a machine to take calls 24-hours a day and the machine is checked regularly, so if the locksmith had called us for support he would have received it. Also, we did try to reach him to help. He, however,

would not return our calls. We can't make him call us back or come to the phone when we call. He knew from the start he was in over his head, but didn't have enough concern for the customers property to admit it. He probably is a great locksmith. But, he is no safe technician.

For those of us who bother to go to the trouble to be members of NSO and SAVTA and spend thousands of dollars to buy tools, supplies, safe opening manuals, training, etc., if we can't criticize a non-professional job then nobody can. As for the safe door that could not be repaired, we are enclosing a picture of the door which we, due to the loyalty we feel toward the customer and the safe tech profession, completely repaired at our expense.

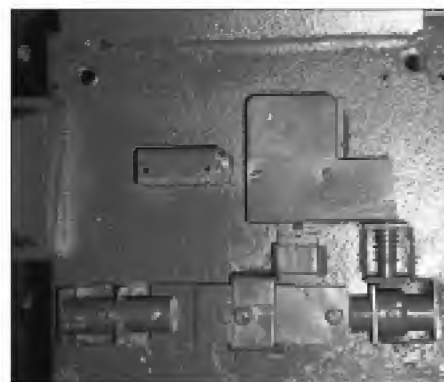
Distributors and manufacturer's are in no way obligated to repair or replace safes that are destroyed by would-be safe technicians.

We are extremely proud of the safe tech profession. We go as far as to offer free classes to any and all of our stocking dealers (those willing to put forth the effort and time) so that they have the knowledge to service the safes they sell competently and will know when they are in over their heads, so as not to butcher a safe.

Mike Griffin  
Griffin Enterprises

## Who's Really Responsible?

This is in response to Jerry Jones letter in the December 1997 issue, regarding the "Who Not to Call When Your Safe is Locked-Up" letter. It is not the responsibility of the distributor to hold the locksmith's hand when he bites off more than he can chew. There are plenty of technical classes offered throughout the industry to enhance



the education of us all. Chances are if a drill point was needed the unqualified technician would have butchered the safe anyway.

If a person doesn't have a clue how to service a product, he is taking a great risk learning as he goes. We have all taken this chance at times in our careers, however, when we make the mistakes it is we who are ultimately responsible. Most of the locksmiths I have encountered along my 15 years of service don't have any proper training to further their career. Sure they might work 15 hours a day to make a living, but that is because they are cutting their own throats, charging

The National Locksmith  
1533 Burgundy Parkway  
Streamwood, IL 60107  
Attn: Editor



## Continued from page 10

their customers half as much as they should for their services.

We as professionals owe it to the public to properly learn our trade, and advance our skills through proper education. We also owe it to ourselves to charge our customers what we deserve, to keep ourselves employed.

*L. Mentzos  
Washington*

## Doing It My Way

I'm writing in regards to the letter P.C. from Alabama wrote in the December 1997 issue. Here in the twin cities I tried unsuccessfully to get a job as a locksmith trainee. I was either turned away or the guy interviewing me wanted me to get on my knees and beg for the locksmith position.

I decided to start my own shop in June 1989. I work a third shift job to make ends meet and during the day I try and do locksmithing.

My money has been limited and it has taken me eight years to get the necessary equipment for my locksmith business.

My so called "friends" think that they can tell me how to get a business off the ground by telling me to work for next to nothing. Then they expect me to come out and open their cars for them for free. I charge them just like anyone else.

It's rough out there, but evidently that is what comes with the free market system.

*Michael Childs  
Minnesota*

## Mandatory Certification

In locksmithing we hear a lot about regulation, registration, legislation, licensing, and certification. We have come to use the terms interchangeably when one has nothing to do with the other. Not only does this cause confusion, it makes for fruitless argument.

I think that the easiest way to clarify differences in terms is to define each. By definition:

**Regulation-** a rule or order giving the force of law issued by an executive authority of a government.

**Registration-** the act or fact of registration.

**License-** a permission granted by competent authority to engage in

a business, occupation, or activity otherwise unlawful.

**Certification-** to attest authoritatively as being true as represented or as meeting a standard.

It is my opinion that locksmiths do not need mandatory regulation, licensing, or registration, but they are in dire need of mandatory certification. If the public is going to change it's image of the industry, they are going to have to be assured that a locksmith meets a standard that is true as represented. The public is going to have to be educated and that will require an effective advertising campaign.

Without the cooperation of all segments of locksmithing, success will be a tough row to hoe. There are about 100 locksmith associations now operating in the U.S. and there are an equal number of locksmith policies dictated by bylaws. In recent years, ALOA has been moving toward a leadership role in the country, if not the world. I encourage this effort. Now if only local associations will swallow a certain amount of pride and allow themselves to be subjugated by a uniform policy- a national standard. I think this can be achieved and still maintain local sovereignty. The one thing that assured the success of McDonald's is the public's knowledge that they know what to expect from the corporation - clean surroundings, fresh food, trained personnel. That standard can be expected from state-to-state-and store-to-store.

Whenever I discuss my opinion with others, I find that they always internalize (personalize) their arguments. How often have I heard someone say that no one cared about letters behind a person's name. I wonder if those same people would trust a doctor who didn't have MD following their name?

It is a matter of meeting a standard and being assured that at least a minimum requirement has been met. To require certification of all locksmiths would require some authority empowered with the ability to enforce such a mandate. The primary concern of a locksmith should be his own well-being, but without team players who care for the good of the whole, there will

never be a concerted effort to advance the cause of locksmithing.

*R.W. Staples, CML  
Washington*

## Responsible For Our Actions

I have read many of the opinions regarding licensing to make us a privatized industry of security professionals. In 1986 when I became bonafide in the U.S. Governments legally drafted Anti-Drug Act P.L. 100-690, we were all tied to that constitutional drafted document by title 39 section 3002. I know this because before I could practice my craft I was fingerprinted by a law enforcement officer. Those fingerprints were then checked by the FBI to insure that I had no criminal background history before I could practice in the security profession. Bonafide means practicing after graduation in good faith, and these acts are made or done without fraud, deceit, and genuine.

Now lets look at the true meaning of a locksmith as defined: A bonafide manufacturer, seller, installer, or repair person of any mechanical, electrical man/woman made device used for such locking or unlocking functional ability. Whether done via a key, combination, or electrical (VDC/VAC) it shall not be manipulated into open position by anyone other than it's bonafide owner/user.

This is why tow truck operators and law enforcement organizations were exempted from maintaining possession of such tools/devices (other than a key) which would legally operate the bonafide owner/users lock mechanism.

In my view this is the national standard of a bonafide locksmith, i.e., security professional. It is also our duty to receive the consumers approval. We are bonded and required to carry business liability insurance because we must maintain accountability for any wrong doings. I call it the Psychology of life's boomerang. The job comes with 100% accountability and responsibility for each of our actions in the profession. If you don't want it then don't take the job, since the responsibility goes with it.

*Willie Bowen  
Virginia*

**TL**



# Security Café

**DROP IN FOR  
TOOLS, TECHNOLOGY  
& EQUIPMENT**

## Perma-Vault's Compact Security Safe

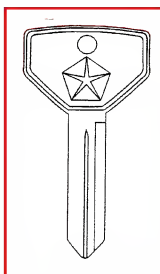
Perma-Vault Safe Corporation's compact all purpose security safe Model PV-1113 features heavy duty 1/4" steel body construction with a 1/2" solid steel door, meeting Class B insurance ratings. Mounting holes on the bottom allow for bolting the safe to any structurally



sound surface, and a foam pad on the bottom protects valuables. Available with either a UL listed group II combination or electronic lock, the safe has an independent spring loaded reloading device and a baked enamel black finish.

## Jet Supplies Chrysler and Ford Keys

Chrysler Corporation has issued its first after market key blank license to Jet Hardware to manufacture original Chrysler key blanks. The initial offering consists of brass, coined and embossed with the Chrysler logo and finished on nickel plating. The lineup also includes the plastic head versions of original Chrysler keys. The numbering system will remain the same as Jet's alpha-



## Mobile Pinning Station

ESP's Mobile Pinning Station is designed to give the locksmith a solid working surface, no matter where the job may be. The kit includes a durable Corian base with 11 EZ access holes for holding pins, a foam pad for easy pick-up of pins and a mini vice to hold the cylinder housing in place.



numerical system with the letter "C" added at the end of the number. Plastic head versions have a "PH" after stock numbers.

## Cylinder Shield Mortise & Rim Protector

Cylinder Shield is a wrench proof collar that easily replaces the cylinder ring. It's innovative cover protects the keyway as well as the entire cylinder against vandalism, theft, dirt, harsh cleaning chemicals and the weather. Cylinder Shield not only protects the cylinder, but also what the cylinder is protecting.

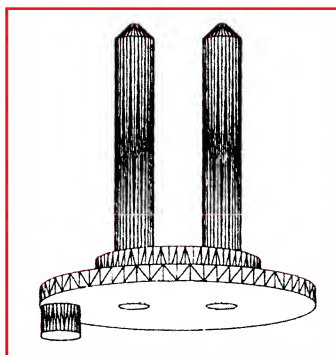
It is made of a strong aluminum alloy and assembled with case hardened tamper proof screws.



## Olympus Lock's New Prong Driver

Because the tailpiece on cabinet door and drawer locks has not been a fixed component in the lock body, many of these either get lost when cores are removed or are discarded accidentally.

The solution is the new Olympus fixed prong driver for the #721 series reversible cabinet door and drawer lock (part #721DR-11 and #721DW-11).



The new prong driver is available as a separate component and is completely retrofitable in all #721 locks.

## AngioLaz Inspectra- Vu-II

RQ Associates is currently marketing the AngioLaz Inspectra-Vu-II self-contained borescope. The handle of the PV-1 has a built in illuminator and is powered by rechargeable batteries. When fully

charged, the unit may be operated on an external wall mounted power supply/battery charger, so that it remains functional even when the batteries are charging. The standard unit has a 24 inch high resolution flexible and ridged distal ends.



## Electromagnetic Lock Installation Kit

The Magnalock IK installation kit is available from Securtron. The IK includes a drilling template for the Models 32 and 162 Magnalock's, blind nut placement tool, drill bits for all



types of door frames and a stock of additional fasteners housed on a handy tool box. The installation kit is perfect for volume installers who want to install the Magnalock® faster with more accuracy.

## Convex Mirrors

Convex safety security mirrors are available in glass or acrylic.





## SECURITY CAFÉ

### Continued from page 14

Rounds range in size from 13 inches through 48 inches in diameter, and a number of sizes in rectangles are also available. Dome mirrors are offered in three shapes: full dome (360°), half dome (180°), and quarter dome (90°) in diameters ranging from 18 inches to 48 inches. The mirrors are utilized to prevent accidents at aisle intersections and to stop theft.

### Sentry Fire Safes

The Sentry Fire-Safe small office safe, model 1645, features a programmable electronic lock and bolt-down hardware for additional security and two adjustable shelves with full length key lock drawer.

The Sentry Fire-Safe small office safe, model 1645, features a four number changeable combination lock, bolt down hardware and full length, key-lock drawer for security and two

adjustable shelves for organizational flexibility.

Both safes are UL classified for one hour proven fire protection.



### Lock Technology Lock-Out Kit

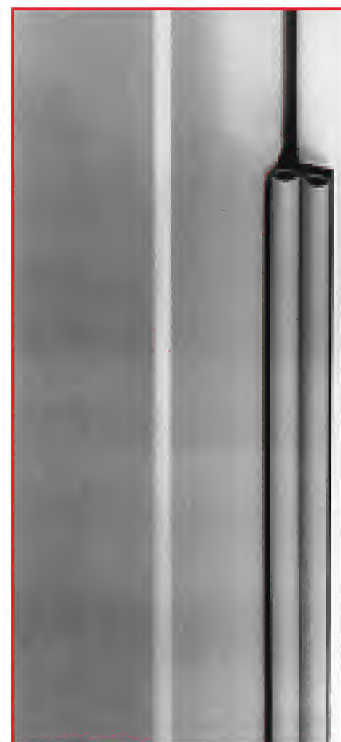
The Model 1000 Supreme Master Auto Lock-Out Tool Kit by Lock Technology is designed to handle emergency lock-outs. This 20 piece tool kit includes an

updated and fully illustrated comprehensive instruction manual and comes in a custom molded carrying case with vinyl inserts.



### Wood Door Upgrade Systems by Zero

Using its specialized intumescent material, Zero International has engineered two practical positive pressure gasketing systems for upgrading the performance and rating of existing 20 minute wood doors. Successful testing of the FS 820 KERF FRAME system and the FS 850 DADO system has resulted in the first ever positive pressure listings for 20 minute Smoke & Draft



Control Doors under the UBC 7-2 1997 fire door standard adopted by ICBO (International Congress of Building Officials). **TNL**



# SCHWAB CORP.

*Fire protection for your vital records.*

## Free freight!! No middle man!!

[Click here for more information](#)



**COVER  
STORY!**

# Computerized Code Machines

## The New Framon FRA-2001 Code Machine

The FRA-2001 entails a completely different approach to code cutting compared with existing machines. The FRA-2001 is a completely computer-driven machine. All functions of the machine are controlled from a laptop or desktop computer. An area on the top of the machine casing will accommodate most laptop computers (see Photograph 1). Minimum system requirements are: a 386 processor running Windows 3.X or Windows 95; 4 M B RAM and 20 M B of free space on the hard drive. The software for the FRA-2001 is installed from six 3-1/2" floppy disks using a simple setup program, and must be stored on the hard drive. The FRA-2001 connects to the host computer via a 9-pin serial cable.

### Registration of the Software

Once the software is installed on the host computer, the setup program will make a window with and icon to run the program, as well as an un-install program. To run the program, simply double click on the FRA-2001 icon. The first time the program is run, it must be registered by calling Framon Manufacturing directly. A twelve digit registration code will appear on the screen, as well as an area to enter the validation code. Once the proper code is received from Framon, the FRA-2001 is ready to go!

### Configuration

The FRA-2001 software is a very versatile package. Through the Configuration utility, the user may set the machine up in a variety of ways. To get to the Configuration screen, simply click on the Configure button on the screen (the FRA-2001 software supports either keyboard strokes or a mouse; in this article we will assume a mouse is being used). A master password must be entered to reach the Configuration utility; FRAM ON is the default password.



Photograph 1.

Once this is entered, the System Configuration screen will come up (see Figure 1).

Here the user can select the preferred key blank number from a drop down list. Ilco, Ilco/EZ, Borkey, Silca, Taylor, ESP, Dominion, Jet, Star, Curtis, and Original can be selected. There is also a selection for User Defined, if the user prefers to enter their own system of numbering. Also, the user can backup the History database, delete the entire database, or restore the database from a disk. The master password can also be changed.

The FRA-2001 software uses a log-in procedure for different users, which is set up in the Configuration utility as well. The log-in, log-out system is ideal for large shops with employees of varying experience. For smaller shops with only one or two users with similar experience, the log-in, log-out system will only be used momentarily when the software is started up. To enter a user, click on Edit User List from the Configuration menu.

Figure 2, shows the user list screen. The information entered in this screen is for an employee that is relatively new to the trade. The user would enter the name of the employee ("Joe"), press the tab key to get to the next field, and enter their full name if desired ("Joe Q Employee"). A password can also be entered - if this field is left blank, a password will not be required to operate the machine. With the name information entered, the user can now turn on or off different features of the machine (to the right of the





Figure 1.



Figure 2.

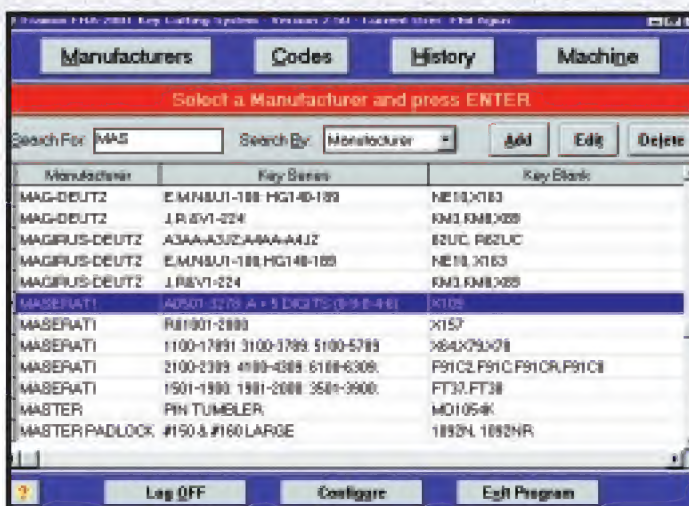


Figure 3.

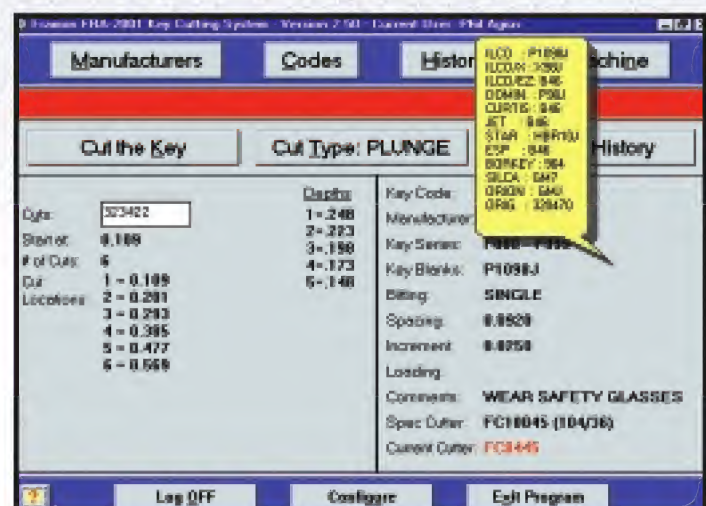


Figure 4.

name information). A box next to each feature on the machine can be checked to enable a feature or left blank to keep it disabled. Since this employee is relatively inexperienced, we can allow him to access the Manufacturer's data, but not to modify it; access to Codes and the History database, but not to delete database information; and access to the Machine settings where he can change the cutter, but not adjust the machine.

For shops with only a single user, a name would normally be entered without a password (when logging on, no password will be required to operate the software) and with all of the machine features checked. If a shop has multiple users, each name can be entered into the user list and have only the features enabled that match their skill level. With that done, click on the Done key to go back to the System Configuration screen. Here the user should determine if he wants the machine to log off users after a period of idle time. In Figure 1, at the top of the System Configuration window is the Automatic Log Off Timeout. If this is set to 0, the user will stay logged on until the program is shut down or the Log Off button is clicked. This would normally be set to 0 for a single person shop. For a larger shop with many employees, this can be set to one (one minute), which will automatically log off the current user after one minute of inactivity. The FRA-2001 can also keep a record of who logged on at what time; simply check the box to the left of Keep User Log.

With that done, it's time to Log onto the program and begin cutting keys!

## Logging On

To log onto the program, simply click on the "Log On" button in the lower left corner of the program. A drop down list will have all the user names displayed; simply click on the proper name and enter a password if necessary, and click OK. As a reminder, if only one name has been entered in the User List and the Log Off Time-out set to 0, this would only need to be done once a day, when the program is first used. The user will be logged on until the program is shut off.

## Hints

The FRA-2001 software includes a thorough Hints library. A question mark button is located in the lower left corner of all screens. To turn the hints on, simply click on the button. Anytime the mouse pointer is left still for a short time, a help caption will pop up on the screen explaining what that part of the program does, or what a button will do.

## Manufacturers

To cut a key with a known bitting, click on the Manufacturers button at the top of the screen. This will bring up the screen shown (see Figure 3). The cursor will be in the Search For: box, where the first few letters of the



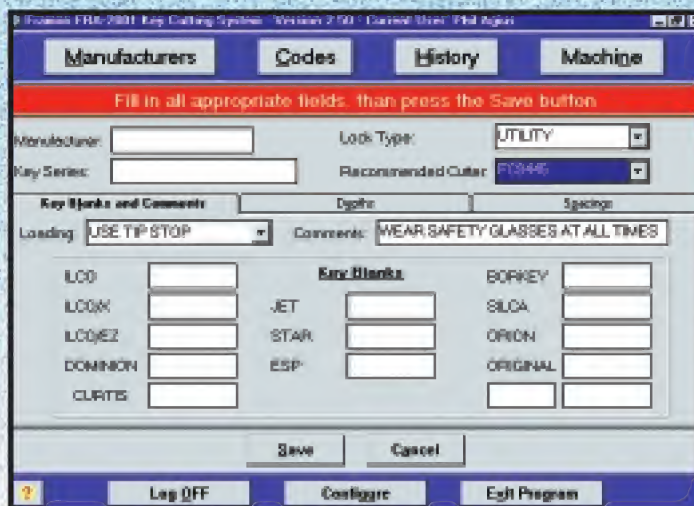


Figure 5.

manufacturer can be entered. In this case, we have typed in MAS; the closest match the software has found is Maserati. The user can enter additional letters (typing a MAST would bring the arrow down to Master), or press the tab key and use the up and down arrows to find the proper chart. With the proper chart highlighted, double click on the mouse to select it, and we can enter the cut numbers. Also, at this screen we can Add a new depth and space chart, Edit existing charts, or Delete charts; this will be explained below.

Figure 4, shows the key cutting screen. The cursor will appear in the Cuts: box. Cuts are entered using the keyboard; pressing the tab key will highlight the Cut The Key button. Pressing the enter key sends the information to the FRA-2001 machine, and in 15-20 seconds a six pin key will be originated. At this screen, a variety of information is available.

Listed below the cuts box are the spacings for the key, with the depths listed to the right. Other pertinent information is listed on the right half of the screen, including the key blank number. For a cross reference on the key blank number, turn the hints button on and leave the mouse pointer on the shown key blank number. The caption window will pop up after a short time with any known cross references shown. The cut type can be changed by clicking on the Cut Type: Plunge button. This will toggle the cut type between plunge cutting and laser (profile) cutting.

The information for this key can also be added to the history database by clicking on the "Add To History" button (partially hidden by the caption window). Three lines of information can be entered and saved for later reference.

### Add, Edit and Delete

The FRA-2001 is instantly updateable by the user as new depth and space information comes out. Figure 5, shows the "Add" screen, where new depth and space information can be added to the Manufacturer's section. In addition to depth and space information, key loading information, recommended cutter, key blank cross-references, and comments can be added to any chart.

Clicking on the "Edit" button in the Manufacturer's section will bring the user to this same screen, where they can edit any depth and space chart. It is also possible to delete a chart from the Manufacturer's section by highlighting the chart and clicking on the Delete button.

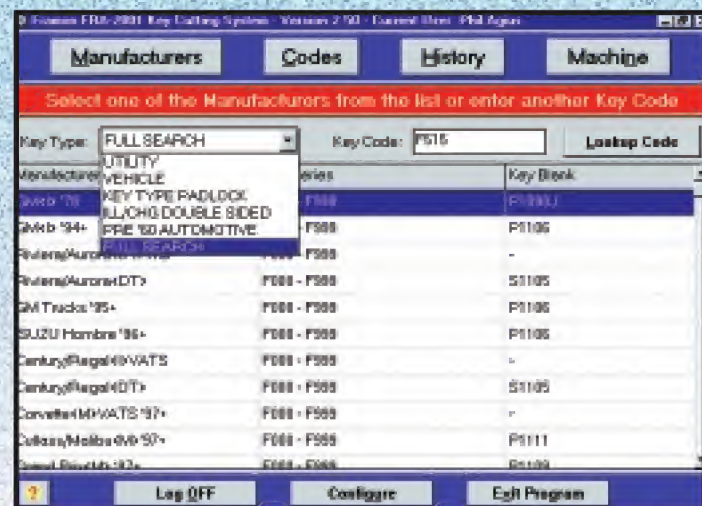


Figure 6.

### Codes

Included with the FRA-2001 is a complete code database. To access the Code section of the program, simply click on the Codes button at the top. This will bring up the screen (see Figure 6). Here the user can select a full search, or narrow it down by selecting the lock type. Tab over to the "Key Code": box and enter the code number (F515 in this case). After pressing the enter key, a list of all of the possible code series will be listed. Similar to the Manufacturers section, use the up and down arrows or the mouse to find the correct code series. Double clicking on the series will take the user to the key cutting screen (see Figure 4) with the cuts already entered. Simply load a blank and press the enter key to cut the key.

### The History Function

The FRA-2001 software includes a database to store information on keys that have been cut on the machine. At the key cutting screen, click on the "Add To History" button to enter three lines of information to define that particular key. To access the History database, simply click on the History button. If there have been many entries into the database, you can perform a search by last name.

Records are sorted by the last name field alphabetically (see Figure 7). Once the proper record is located, double click on the record to go to the key cutting screen. All information on the previously cut key will be on the screen; load a blank and press the enter key to cut the key. Old records can also be deleted from this screen.

### Machine Controls

To access the machine settings screen, click on the "Machine" button near the top of the screen (see Figure 8). Here you can change the cutting wheel from a drop down list of all available Framon cutters; adjust the depth or spacing of the machine in .001" increments, or adjust the feed rate, max rate, dwell, and acceleration of the stepper motors. By clicking on the Communication button, you can select a comport for the host computer and verify that the machine and computer are communicating.

All adjustments are easy to make; to adjust the machine to cut .005" deeper, simply click on Adjust Depth and press the up arrow button five times.



Continued from page 20

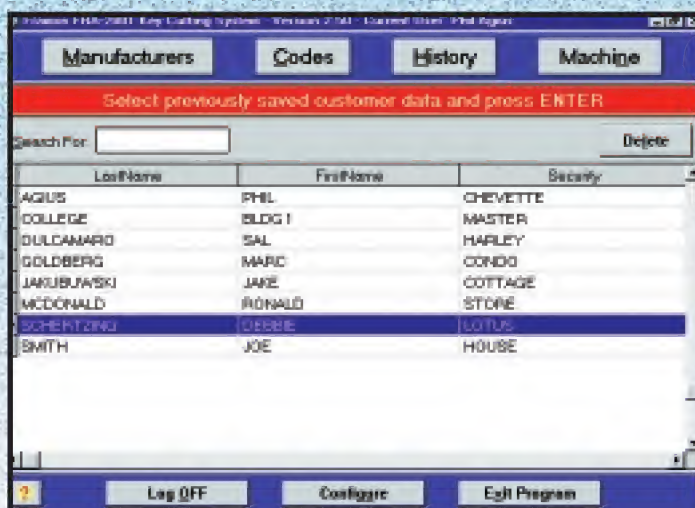


Figure 7.

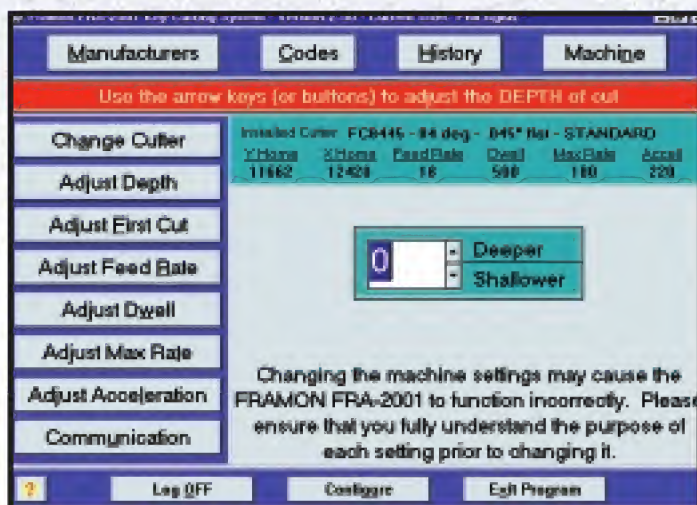


Figure 8.

## The FRA-2001 Machine

The FRA-2001 key machine will take care of practically any code cutting need you may have. The key vise is double sided, and features built-in tip stops for automotive keys as well as interchangeable core. A bright red shoulder gauge springs to the proper position when turned up. The software tells the user the proper key alignment when a chart is pulled up. As with any Framon key machine, sealed ball bearings are used throughout the machine. Depth of cut is taken care of by a cutting head that moves in and out of the machine casing, and spacing is handled by a vise assembly that moves laterally.

Two switches are mounted to the front of the machine, labeled "Main" and "Spindle." The main switch controls power to the entire machine. The spindle switch controls power to the cutting wheel. The main purpose of the switch is to turn off the power to the cutter when changing wheels. It also serves as a safety device.

## Warranty Information

The FRA-2001 key machine carries two warranties; the complete machine has a one-year, parts, labor and freight warranty. The second warranty covers the control box of the machine (the "brains"), which has a lifetime warranty. Software upgrades are free for the first year from the date of purchase. Program or code updates are also covered.

For more information call Framon at 517-354-5623.

## More Computerized Code Machines . . .



### Curtis PC+

The Curtis PC+ is the only patented computerized Code Cutting machine that also duplicates (US Patent Numbers. 5,676,504, 5,314,274, and 5,443,339). The PC+ includes free new model updates (no cams or carriages required) and is fully covered under a 3-year warranty. The PC+ can be purchased or a three year lease option is also available. PC+ is fully self contained with no additional computer needed.

For more information, call the Locksmith Division at 1-800-555-KEYS.

### HPC's Codemax

HPC's Codemax is the original computerized code machine. Code key generation and reproduction are done automatically and accurately using machine stored manufacturers' dimensions. Codemax™ comes with five cutter wheels, which allow it to cut the majority of keys available worldwide. It performs automatic widening of cuts when necessary, contour cutting for automotive keys, and is able to cut high security angle cut keys. Codemax™ is a complete stand alone unit. It becomes even more powerful when attached to your computer using HPC software. HPC produces four software programs to take advantage of Codemax's power: CodeSource (code retrieval), KeyChoice (key blank cross-reference), MasterKing (master keying), and KeyTrail (key blank management). Codemax™ is designed for the progressive security professional.



For more information call 847-671-6280.





## Silca Quattrocode

The Quattrocode is an automatic electronic key-cutting machine for originating and duplicating laser-type auto, dimple and commercial type keys. Reproduction of the original keys to exact factory parameters with minimal tolerances is assured regardless of which cutting method is selected. The Quattrocode can decode these keys and then give you the choice to reproduce this key exactly or to factory specifications. Calibrating the cutter or decoder before the beginning of each task is automatic. Decoding of keys is about as easy as it can get. It is fast and very accurate.

With optional jaws, attachments and cutters a large range of keys can be cut such as: Medeco, ACE Tubular, 2 & 4 Track Auto, KABA, DOM, KASO & MUL-T-LOCK.

The Quattrocode is bundled with an easy to use software program that must be used to operate the cutting and decoding process. The software has several high-security codes included with the program. The program will also allow you to keep customer information, such as name, address, VIN, and code number.

For more information call 800-334-1381.



## ITL9000 Computer Key Machine

The new design uses precision linear bearings for enhanced stability, accuracy and durability. For the past 12 years ITL has led the way introducing new features and designs as new technologies have become available. The new design will allow us to give you more value at a reduced cost. The newly designed carbide cutter is available to provide long life and unsurpassed accuracy. The 9000 still comes with the Medeco BiAxial head as a standard feature and has all available manufacturers depths and spaces built in with instant update ability for hundreds more.

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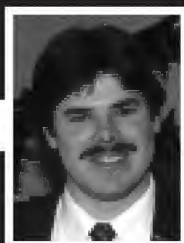
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1. The Lincoln Town Car is very popular with the commercial limousine companies. It has a sleek style and has a comfortable ride. This model uses the standard Ford 10-Cut design locking system.

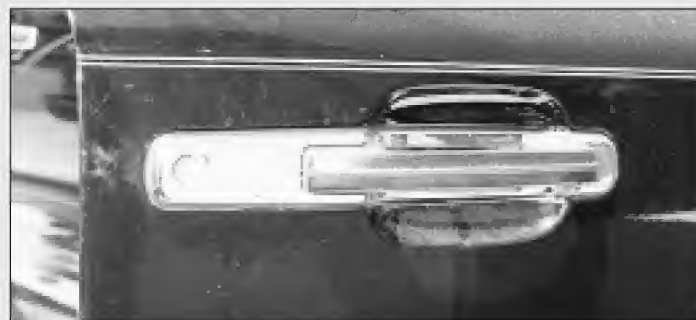


# 1995 Lincoln Town Car

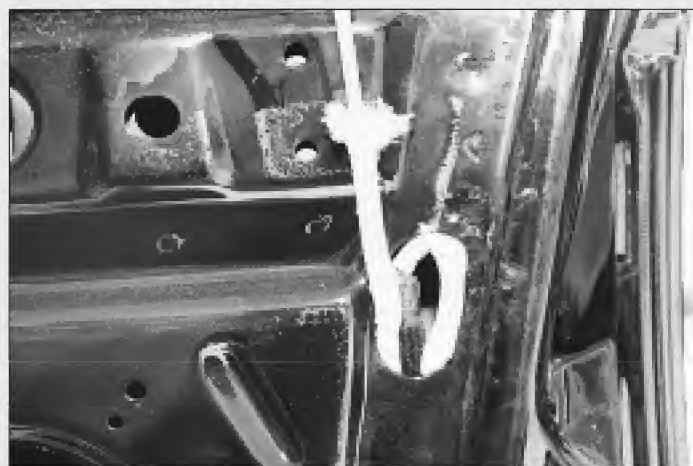


by Michael Hyde

## Opening



2. The easiest way to unlock this car is to pick open the door lock. The position for "raking" the tumblers are 5 to 7 o'clock.



3. The car has vertical linkage and can be opened with a slide linkage tool and a wedge.



Continued from page 24

## Ignition



4. A view of the ignition lock mounted in the column.



5. Insert a working key and rotate clockwise to the first position. Insert a straight probe through the access hole in the plastic shroud and depress the retainer.



6. After you depress the retainer it may be necessary to wiggle the ears of the ignition lock to slide it out, since the tailpiece interlocks with the switch opening in the housing.

## Door Lock



7. A view of the door panel. It looks harder than it is.



8. Remove the lock retaining clip on the side of the door.

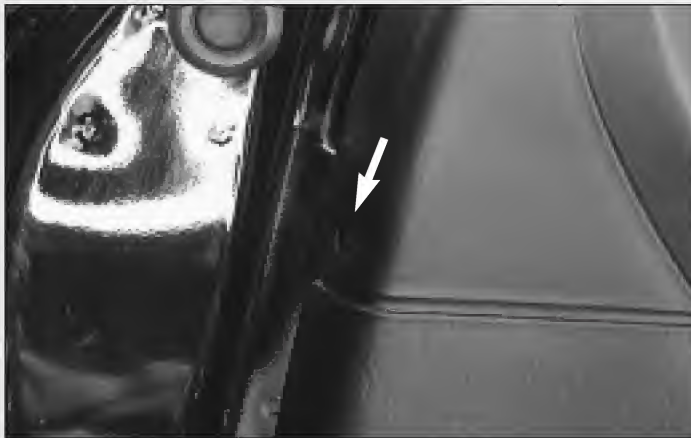


9. There are trim covers on each side of the door pull strap. Remove the covers and then remove the screws behind them.





10. Open the armrest / storage compartment and remove the panel screw.



11. On the forward section of the panel is another panel screw, that has to be removed. The panel is now ready to be removed. The panel uses the standard push-in style plastic fasteners.



12. To gain easier access to the door lock, you should remove the rear window track, it is held in place with a single 10mm bolt. The top of the window track has a guide clip that allows it to slide right back up and in.

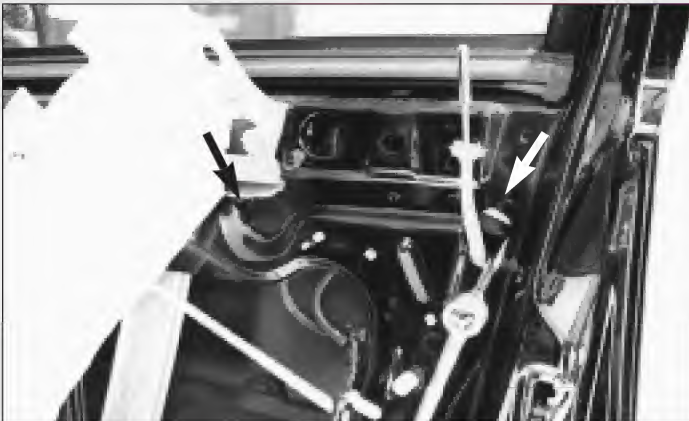


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13. To access the door lock it will be necessary to remove the outside door handle's 10 mm nuts. These nuts can be removed by using a socket through the access holes in the door panel. The door lock has an electronic switch attached to the rear of it and the face of the cylinder is illuminated. The wiring for the lock is held to the inner door panel by plastic push-in style fasteners. To give you enough play when removing the lock cylinder you will have to unsnap these fasteners.



14. A view of the outside being pulled away from the lock cylinder.



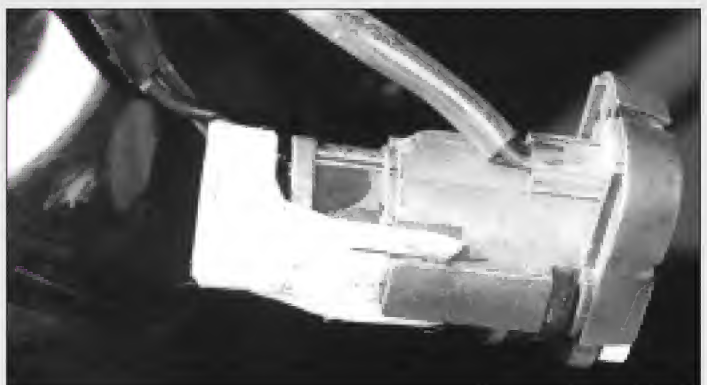
15. Tilt the handle up to give you more access to maneuver the cylinder out of the door.



16. It may make it easier to remove the plastic tailpiece on the lock cylinder when trying to remove it.



17. The lock cylinder and the attached wiring with wiring fastener.

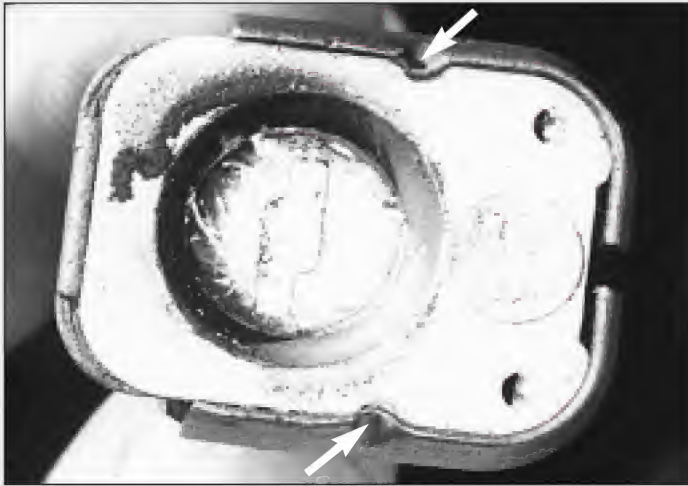


18. A closer view of the wiring on the lock cylinder.

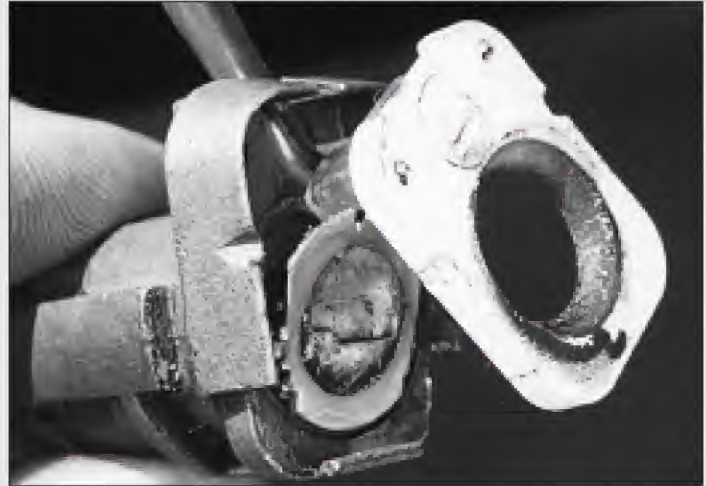


19. The switch that attaches to the rear of the lock cylinder.





20. The lock cylinder can be disassembled while still attached to the car. The illumination circuit can be gently pried out of the way. Be careful not break the lens.



21. Once the lens is unseated you can remove the wiring from the face of the lock cylinder.



22. The lock cylinder removed from the car. The dust shutter assembly is held down in place by the illumination lens.

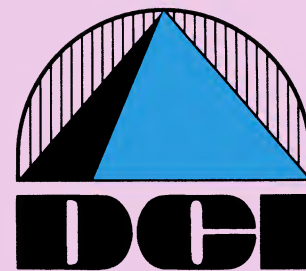


23. Insert a working key and rotate the cylinder plug to remove it. If you do not have a working key you can depress the wafers from the rear of the cylinder and then rotate the plug to remove it from the housing.



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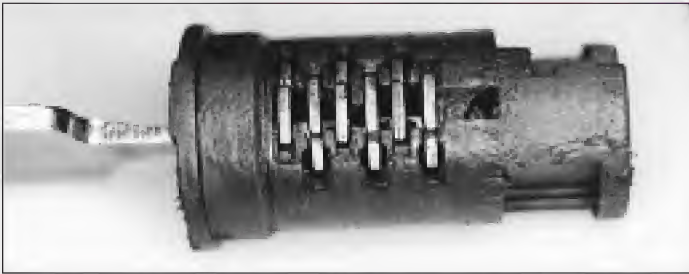
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24. The door lock cylinder plug contains 6 tumblers, all in one direction, for positions 1 through 6.



26. The trim cover is removed and you now have better access to the lock cylinder for removal.

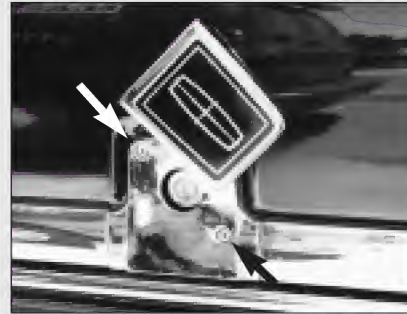


28. The clip will only come out so far, do not try to get it out any further.

30. There is a locking star washer holding the housing, remove the star washer and then you can slide out the cylinder.



## Trunk Lock



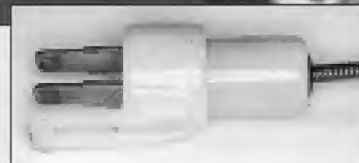
25. A view of the trunk lock cylinder, it has a decorative trim cover. Drill out the two rivets to remove the trim cover.



27. Drill out the rivet holding in the lock retaining clip.

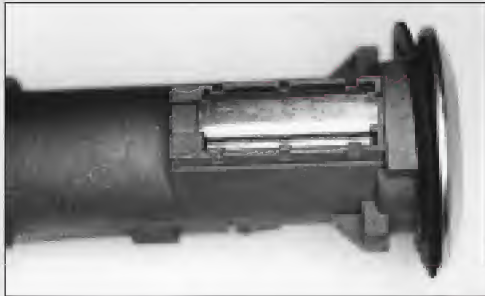


29. Remove the two bolts that hold the latch assembly in place.

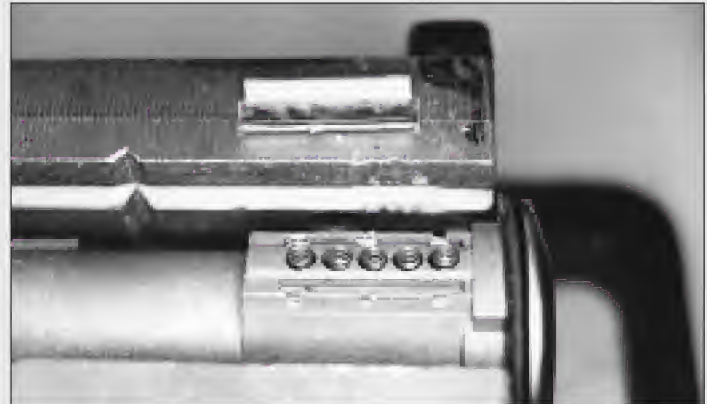


31. The cylinder has a security line attached to it. If the cylinder pulls out by force it will activate the factory alarm system.





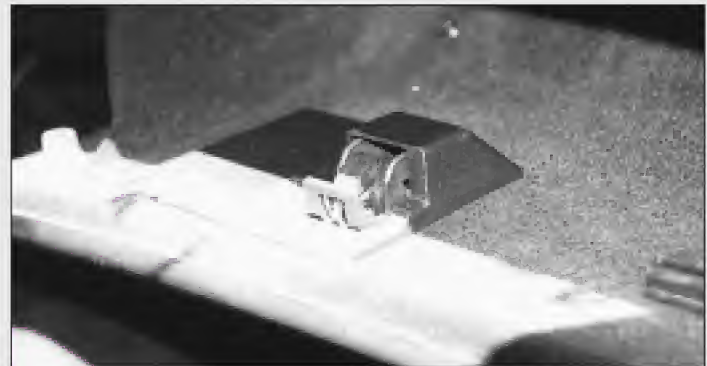
32. The trunk lock cylinder is an easy one to re-key. The pin tumbler cap is staked in place. Gently unstake the cap and remove it.



33. The cylinder contains all 5 tumblers for the secondary key. After re-keying the cylinder you can then restake the tumbler cap or use a new cap.



34. A view of the glove box door.



35. Unsnap the black plastic trim cover on the rear of the lock and latch assembly.



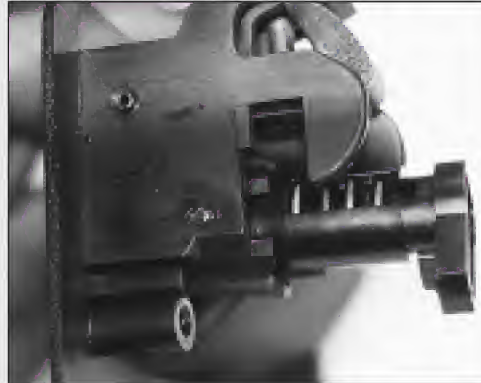
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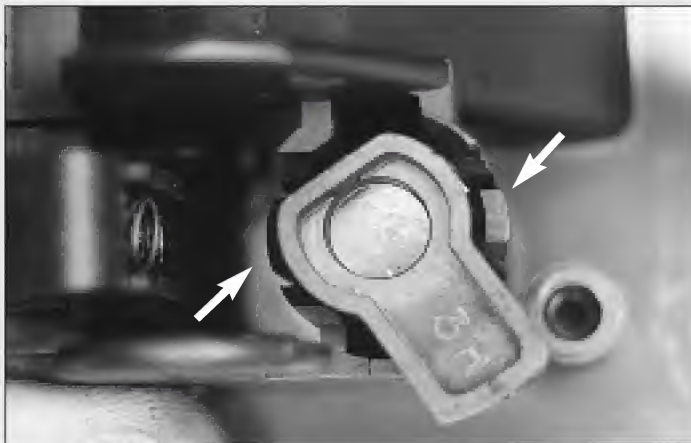




36. Next, remove the four Phillips-head screws that hold the lock and latch assembly.



38. The plug being removed.



37. To remove the cylinder plug gently pry the two tabs that hold the plug in place.



39. The glove box cylinder plug contains 4 tumblers, for the secondary key, in positions 2 through 5.

### PRIMARY KEY — (Ignition & Doors)

**Method #1:** Use 'EZZ-Reader' for door key and common cuts. Common cuts are in positions 5 & 6. Then use ignition half set of try-out keys to make ignition key. Combine the cuts to make final door/ ignition key. Do not impression the ignition as it uses a side-bar, but the doors are standard plate tumblers.

**Method #2:** Use Try-Out Keys first in the door, after you have determined the door cuts, then use try-out keys for the ignition.

**Method #3:** Disassemble door cylinder or sight read wafers to make working door key. Then progression spaces 7, 8, 9, & 10 to make working ignition key.

### SECONDARY KEY — (Trunk & Glove Box)

**Method #1:** Use try-out keys.

**Method #2:** Remove & disassemble glove box lock cylinder to obtain cuts in positions 2 through 5. Progression remaining position #1 in trunk lock.

**Method #3:** Impression lock trunk, usually marks well.

**Code Series:** Ten Cut-A-B-C-D-E

**Key Blank:** Ilco — H54, H55, H60, H66

Silca — FO26-OR, FO26, FO29

**Reed Codes:** 08-04-001

**HPC 1200CM #:** X56

**M.A.C.S. 2**

**First cut:** .201

**Framon:** Use Ford FD84 clip and set for first cut @ .100

**Cut to Cut:** .092

**Depths:** 1=352, 2=326, 3=300, 4=274, 5=248

**Spacing:** 1033/ 941/ 848/ 756/ 663/ 571/ 478/ 386/ 293/ 201. **INL**



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**A**utomotive locksmithing used to be so simple. Like me, many of you have been involved in various segments of this industry over the years, and as the years have passed we've seen a lot of changes. In the past 10 years, the majority of change has evolved around electronics and the ability of the automobile manufacturers to offer technology and features once available only to the government and military.

But to understand how far we've come, we — especially today's students and apprentices — need to understand the way it was.

## The Past

In the 1960's and 1970's things were pretty basic. Most lockouts were still accomplished with a Slim-Jim. When keys were lost to a car or a truck, a code was usually printed on the door lock. The door key fit the ignition without any modification so cutting a key by code for GM products

was a snap. Likewise Fords and Chrysler were still using single sided pin tumbler locks (although Ford switched to a reversible, double sided convenience key in 1965, the lock was still a single row of pins on one side). Ford pins were on the 'top' in doors and trunk, but on the 'bottom' in the ignition by the time it moved to the steering column — an important fact if you chose to impression from the column.

Even those pesky little foreign cars — Datsuns, Toyotas and Hondas used single sided disc tumbler locks. They were easy to impression, pick and service. Key duplication was easy. Life was good!

By the 1980's things were changing. Cars were getting more sophisticated. Electronics were just starting to emerge in ignition system components and security was becoming more important to the consumer, and therefore, to the auto manufacturer.

Toyotas started getting serious about keeping you out if you didn't have a key. Linkage components inside the doors began to be protected by shields, flanges and tubes. The physical changes also applied to the lock and key systems.

While Mercedes developed their 2-track high security locks and keys, GM introduced VATS on the Corvette. Many locksmiths voiced concern over these "new fangled" locks and keys. Some of those locksmiths who were heard to say "I'm not gonna mess with those" didn't. The cost of equipment to service these components was high. The investment to cut the Mercedes system only made sense if you serviced a lot of Mercedes.

The GM VATS though was more intimidating. Every locksmith had customers with Chevy's, Buick's and Cadillac's. While the original VATS evolved and spread throughout the entire GM line as expected, the Mercedes type system had greater impact than was first thought. Key duplication had become more involved. Variations of the original Mercedes 2 track and 4 track keys are now found on a number of different cars. Lexus, Infiniti and Mazda Millennia all currently employ what are called "laser cut" keys.

## The Present

Taking a giant leap forward to the 1990's, we see tremendous changes in automotive technology and likewise the knowledge, ability and equipment required to support that technology.

Lockout technicians can no longer count on 'gravy' calls on the new cars. In addition to highly sophisticated anti-theft devices, you are faced with a variety of components in a door.

In addition to fiber optic cable and computer related wiring, there are components in the door cavity that can be damaged by lockout tools. The linkage systems in many cars are well guarded by high security anti-theft protective devices. Lexus and Toyota models use an automatic relock device. The biggest change from a lockout standpoint is the introduction of side impact protection systems (SIPS). Commonly referred to as side-impact airbags, their use is steadily growing. In 1997, the list of cars using SIPS was only about a dozen cars long and they were all high priced luxury models...BMW, Cadillac, etc.

# Automotive Locksmithing

Past, Present and Future



by  
Tom  
Gillespie,  
CML





So far in 1998 the list is up to 44 models, including such everyday favorites as Toyota Corolla. While SIPS is still optional on some models, expect them to become standard equipment on most models. Placement of the airbags can be in the door cavity itself or in the seat frame. Even when the air bag is in the seat, the activating sensors may be in the door cavity, prone to damage or activation by lock-out tools.

**K**ey duplication in today's world has also come a long way. In addition to high security mechanical keys, electronics are seemingly everywhere. VATS and PASS are still abound, but transponders are the hottest thing around.

Standard automotive key duplication is about as profitable as duplicating house and office keys. The cost of blanks is similar or slightly higher and the laser cost is identical. Double sided keys only slightly adds to the cost. Miscut keys are a minor concern. With the advent of VATS keys, we saw an enormous jump in the price of automotive key blanks and an enormous profit loss in the case of miscuts.

In the case of transponder keys, accurate mechanical duplication must be matched by proper programming. In other words, the electronics of the duplicate key must be 'trained' to work with the vehicles existing computerized program.

Believe it or not, some electronic key programming involves steps utilizing the buttons on the cars audio system or pressing the accelerator pedal or parking break in a specific sequence to send an electronic code to the cars onboard computer, allowing it to 'recognize' the new duplicate key.

## The Future

Since we already have automakers offering built in satellite technology ie: GM's OnStar System, and Lincoln's Roadside Emergency Satellite Communications Unit (RESCU) it's hard to imagine what the future holds. The current factory systems include such valuable consumer services through the accompanying cellular phone as remote unlocking, stolen vehicle tracking, directions, roadside assistance and emergency response—all through a live operator, 24 hours a day, 365 days a year.

The flexibility of computerization is limited only by the imagination. Instant rekeying, audit trails, remote kill switches and vehicle activity monitoring and tracking are not only possible, but in use by some organizations.

Imagine your shock when you get a letter (or e-mail) from the rent-a-car company. "Dear Sir, Please be informed that you are no longer authorized to rent cars from us. According to our records you rented a car last week and repeatedly exceeded the speed limit, made illegal turns, and used the vehicle in ways that violate our company policy. Your traffic violations have been noted to the proper authorities and they will be contacting you."

Sorry? You bet! Is big brother watching? You bet! Will we ever get to the point of a "keyless" car? Mercedes already has a concept vehicle utilizing infrared and biometrics that only let "authorized" people gain entry, start and drive the vehicle. If the car doesn't recognize your hand geometry or vocal commands, it refuses to go and may call the cops on you.

And if all of this sounds far-fetched, dust off your copy of "1984" by George Orwell. Written in 1947, it predicts a future world of instant information access, electronic worldwide communication and the ability to monitor movement and activity. Relax, the "thought police" aren't here...yet.

I am happy to be the newest member of The National Locksmith team and will be directing much of my time focusing on the automotive arena to keep you abreast of the latest technological advancements. The National Locksmith is dedicated to bringing you the latest and greatest in both this magazine and The National Locksmith Automobile Association (NLAA). I will do my best to help make that happen.

**A**s an automotive locksmith, think about this. If you're not moving forward you're falling behind. Learn all you can about the new automotive security systems and technologies, educate yourself, invest in reference material and keep reading this magazine. We have some great things planned for 1998 so keep in touch.

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# Access Control

## PART 2



by  
Steve  
Gebbia

*with*

# SECURITRON

Last month we briefly covered requirements for designing an access control system, selecting the components, the site for the installation and wiring it up. In the first part we also covered the installation of the Securitron Magnalock, BPS-12 power supply and PB-4A auxiliary button. This month

available, these can be combined to create almost any combination of locking and unlocking desired. It also allows the assignment of holiday schedules. Two 10 amp dry contact outputs, three operating modes, and a few special features allow you to configure the DT-7 to fit your needs exactly.

### The DT-7 Timer Installation

This is a very versatile timer that can control most electronic devices. Programming is very straight-forward. One thing that will assist you is to understand how the timer reads instructions. It does not check to see what state it is in and then 'decide' if it should be locked or not. Instead, it 'walks' through the day, one second at a time. As it progresses, it looks for instructions. As it reaches an instruction, it executes it.

If it encounters both an "on" and an "off" instruction at the same time, the "off" instruction is executed. This is particularly useful for creating holiday schedules. To do so, assign a second time zone that includes an "off" instruction at exactly the same time as a previous "on" instruction.

An example: The timer normally unlocks the door at 9:00 a.m. each weekday. But this Friday is a holiday. Time Zone 1 shows "on" at 9:00 Monday thru Friday. Create Time Zone 2. Assign it as follows:

Time Zone 2: OFF FRIDAY 09:00



1. An electronic timer, Securitron model DT-7, unlocks the door each morning and relocks it each night.

we conclude our complete access control installation featuring Securitron products by covering the DT-7 Timer, Touch-Sense bar and DK-26 keypad.

### The Timer

An electronic timer, Securitron model DT-7, unlocks the door each morning and relocks it each night (see Photograph 1). This is a seven day, 24 hour timer that has 6 programmable time zones. Each time zone can be assigned to a particular day, or for a block of days. Since there are 6 zones



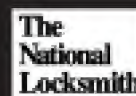
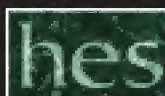
2. The timer was mounted inside a junction box and the wires run accordingly.

This creates both an "ON" and "OFF" instruction at the same time. The "OFF" instruction will be executed.

Because this timer can be used to control both normally open (NO) and normally Closed (NC) circuits, the "ON" and "OFF" symbols may be confusing. ON refers to power applied to lock. OFF refers to no power to lock. In the case of an electromagnetic

Continued on page 40





**Continued from page 38**

lock, this means that ON is the UNLOCKED mode. OFF would then be the LOCKED mode. This can be confusing to your customer unless you explain it.

The timer was mounted inside a junction box and the wires run accordingly (see Photograph 2).

**The Touch-Sense Bar**

Securitron's Touch-Sense Bar (TSB) provides free egress at all times (see Photograph 3). This is a stationary bar with no mechanical switch. Simply touching the bar will release the lock. How, then, does it operate?

A simplified explanation is that your body creates the ground for the circuit. The floor surface does not affect operation. You can be standing on a rubber mat, on carpet, on floor tile or even on a steel plate and the TSB will still operate properly. This is because you, specifically the fluids in



**3. Securitron's Touch-Sense Bar provides free egress at all times.**

your body, are creating the ground - not the floor you are standing on.

Included with each TSB is an armored door cord to bring power to the touch bar (see Photograph 4). This is the most reliable way to power the bar - and the most attractive.

**The Touch-Sense Bar Installation**

The TSB includes a 6-conductor cable that must be brought to the

hinge side of the bar. Which wires will be used will depend on your system.

The proper way to bring wire to the device is to pull the wire through the door (see Photograph 5). On a glass door, this is an easy task. On other doors, particularly wood doors, it can be quite difficult. To allow for this, the wire may be brought out of the bottom of the bar itself.

The cable has a connector on one end. This attaches to the circuit board located inside the touch bar (see Photograph 6). Because of the size of the connector, the wire must be fished up the side of the door - not down it. To do this, fish a "pull wire" down the door and then use that wire to pull the cable back up the door to your exit hole (see Photograph 7). The cable can then be threaded through the armored door cord and up the door frame.

Located on the circuit board is a potentiometer for adjusting the sensitivity of the touch bar. If the device is set too sensitive, it may read false activation's. Likewise, setting sensitivity too low may prevent a person wearing gloves from activating the device. Generally, you should adjust sensitivity just low enough to activate under "normal" conditions for that particular application.

In the event of AC power failure, the battery will keep the Magalock secure but may not provide enough power to activate the Touch-Sense bar. In this instance, the bar may be released with the manual switch located behind the hinge end of the bar.

**The DK-26 Keypad**

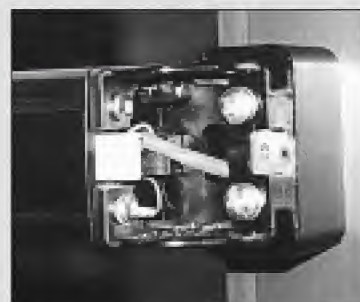
To provide access for employees, the DK-26 keypad was chosen (see Photograph 8). This attractive keypad



**5. The proper way to bring wire to the device is to pull the wire through the door.**

is an easy to install access control system. It consists of the keypad itself and a control panel. This controller may be concealed above a ceiling or placed near other electronic equipment. Several options allow you to customize the codes to your particular system requirements.

The Securitron DK-26 keypad is an all-weather narrow stile, cast stainless steel keypad housing with



**6. The cable has a connector on one end. This attaches to the circuit board located inside the touch bar.**

remote electronics. The package includes the keypad with a 16 foot 12 conductor cable, CPU enclosure and fasteners for mounting.

**The DK-26 Installation**

The DK-26 keypad has a 12 conductor cable attached to it that must be connected to the controller (see Photograph 9). The cable is 16 feet long. This allows the cable to reach the controller if it is located near the door.



**4. Included with each TSB is an armored door cord to bring power to the touch bar.**







**7. Because of the size of the connector, the wire must be fished up the side of the door - not down it. To do this, fish a "pull wire" down the door and then use that wire to pull the cable back up the door to your exit hole.**

If you choose to use the "bell" button to activate a doorbell or other sounder, remember that this is only a dry contact and you will need to provide your own power supply for the bell.

#### **Conclusion**

As wired, this system works extremely well and accomplishes all that it was intended to. The completed installation can be seen in Photograph 10. Because of the size of the door, the dark color of the products and the distance needed to take the photograph, it is a bit difficult to



**8. The DK-26 keypad is an all-weather narrow stile, cast stainless steel keypad housing with remote electronics.**

clearly see everything, but the system works beautifully and looks good as well.

The wiring diagram provided by Securatron helped immensely. Because there are so many different components that a Magnalock can be used with, it is not possible to include complete wiring recommendations with each instruction book. There are

a few examples given, but they are by no means the only possible solutions.

Given the same job, would I do anything differently? I would use the same products and install them in the same locations and manner. But I would make a few minor wiring changes. The first has to do with the push-button switch. As wired, the Green LED lights as power is applied

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**9. The DK-26 keypad has a 12 conductor cable attached to it that must be connected to the controller.**

to the lock. When no power is applied, the LED is off. This can be confusing because, in this case, Green is indicating Secure. It would be more appropriate to have Red indicate secure. I would wire it so that the Red

LED lights to indicate Secure (power to lock) and Green indicates Unlocked (no power to lock).

The other change also concerns the PB-4A. Although this wiring is acceptable, I would probably wire it to momentarily release the timer relay. This would prevent the possibility of the door not unlocking due to the button having been pushed.

One other minor change suggested by a friend (thanks Mike) is that The timer, power supply and the DK-26 controller all use screw terminals for the wiring connections. Using spade type connectors crimped to the wires would allow for a cleaner, easier installation as well as a solid, reliable electrical connection.



**10. The completed installation.**

Remember those five locksmiths we asked about electromagnetic locks? Well, four out of five locksmiths know a good thing when they see one.

For more information on Securatron products, call 1-800-MAGLOCK (624-5625). **TNL**

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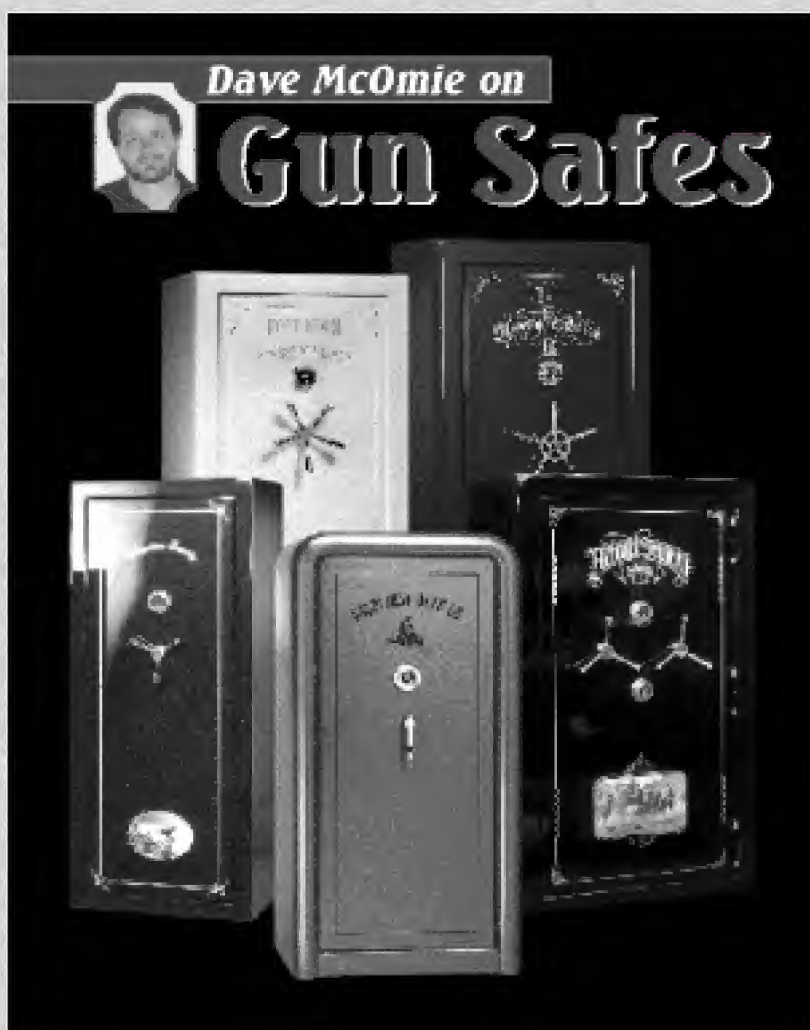
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**A Monthly Review of  
Technical Manuals**

## Dave McOmie on Gun Safes



**D**ave McOmie on Gun Safes provides a clear and concise guide to opening this fast growing segment of the safe market. Need a drill point or relocker drill point on a gun safe? This book offers detailed data, excellent photographs and precise information on gun safes made by Amsec, Blue Star, Browning, Cannon, Centurion, Cobalt, Fort Knox, Frontier, Gardall, Gold Coast, Goldfield, Granite, Halls, Kodiak, Liberty, Treadlok, ValueLok, Winchester and Zanotti. Each safe is thoroughly covered in rich photographic detail. Leaving nothing to the imagination.

Also included is an invaluable section on how to defeat the most popular locks currently on the market, both mechanical and electronic. Mechanical locks include: Ilco P67, La Gard 3330, S&G 6730. Electronic locks include: Amsec KPL-100, KPL-2000, ESL-10, La Gard Swingbolt, Old Style 33E, New Style 33E, and S&G 6120.

Gun Safes is a full size 8-1/2" X 11" perfect bound book, printed with a four color cover, and black and white interior

photographs. A very large number of photographs are accompanied by specifications and opening procedures that make service of gun safes quite easy. This is a beautifully presented book showing you everything you need to know to quickly and easily defeat any of the gun safes presented.

Each manual presents a large number of safes which are not repeated in any of his other works. Safe opening technicians have benefited from this vast bank of information by gaining ready access to the drill point on most available safes. This means that instead of spending many hours on the job, looking for the right drill points, you can drill the first time in the correct location.

If you need valuable gun safe information and you need it now, Dave McOmie on Gun Safes makes it possible.

Price for Dave McOmie on Gun Safes is \$110.00 plus \$5.00 for shipping and handling. It is available from The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107. Phone: (630) 837-2044, Fax: (630) 837-1210.



# Goldfield



## Specifications

Lock handing: VD

RLDP:

Handle: CW

106 • Dave McOmie



Sample Pages: Dave McOmie on Gun Safes

The Bookmark

## Goldfield



▼ Yes, that is a glass plate attached to the lock and to the relocker. Punch the lock and off goes the relocker.



Gun Safes • 107





# Locksmith Schools & Educational Services

**E**ducation and continuing education is no longer a luxury, but a necessity. With the rapid advancements in technology, it has never been more important to keep abreast of the coming trends and understanding those trends. As with technology, educational sources have made great advancements, offering a broader range of courses of far greater detail. Lockmasters and Pine Technology College are a couple such educational sources. Expanding on their foundation, they are offering more than ever before.

## **Lockmasters**

Focusing on the future, Lockmasters continues to expand their horizons. A long-standing force in Safe and Vault industry education, they are now branching out into new areas of education. With the addition of Lockmasters new education center, they've not only expanded in size, they've also expanded their content.

The new Lockmasters Education Center officially opened on April 9,

1997. The 11,000 square foot building is devoted entirely to the education of the security industry professional. This permanent facility offers students spacious, functional classrooms in an environment conducive to a positive learning experience.

Equally educational is the Harry C. Miller lock collection also housed in the Education Center. The collection, described as the world's largest and most comprehensive, is displayed in 26 museum cases. Students may browse through safe and vault history, perhaps viewing an Arabic lock and key of steel and brass, inlaid with gold and silver (dated 1303) or an 1860's lock from West Africa made of wood, iron, and steel sheeting.

Lockmasters curriculum has been expanded to include advanced training "Signature Series" classes. These classes are scheduled and priced with the commercial locksmith in mind and are designed for those who want to learn and practice specific locksmithing skills that go beyond the basics, stressing hands-on applications and providing

the latest technical information. Signature Series courses are priced under \$600 and are held primarily on weekends so the technician can attend without losing excessive shop time.

**A**dvanced Picking, Advanced Impressioning, Automotive Opening, CCTV, Push-button Manipulation, Simplex Certification, Time Lock Servicing and Lever Lock Picking are among the new courses added, and the instructors are some of the most knowledgeable people in the industry.

Lockmasters continues to offer up to date training in other areas of the security industry. These courses include Professional Locksmithing, GSA Security Container Training, Red Label GSA, Fundamentals of Electricity, Electronic Access Control, Electronic Safe Lock Servicing and a variety of Safe Classes. Each course is designed to give hands on training necessary for "real job" situations.

For those of you who can't get away for the necessary training, Lockmasters

**Continued on page 48**



**1. Lockmasters education center and Harry C. Miller lock collection.**





## Continued from page 46

offers the following classes through correspondence: Safe Lock Servicing, Safe Deposit Box Servicing and Combination Lock Manipulation.

For more information on Lockmasters' Education Program, please contact Christa Osborne at (800) 654-0637, ext. 200 or (606) 885-6041. Contact the Education Center by fax at (606) 887-0810 or e-mail at [education@lockmasters.com](mailto:education@lockmasters.com).

### **Pine Technical College**

Pine Technical College is one of Minnesota's 37 colleges and universities located in Pine City, Minnesota, 60 miles north of Minneapolis/St. Paul. In addition to majors in business, health, human services, automotive, machine trades and gunsmithing, the college offers several options for persons interested in a locksmithing career.

Pine Technical College's Security Technician/ Locksmithing program has two main goals. The first goal is to provide the basic locksmithing skills needed by a wide range of employers; second, is to provide a variety of options which allows each student to direct their studies toward specific jobs or interests.

The key word in Pine Technical College's locksmithing education program is choice. The basic Security Technician/ Locksmithing diploma program is industry-oriented and emphasizes practical, hands on learning and guided practice. This 48 credit diploma program can be completed in one academic school year. The course covers identification and service techniques for the most common situations faced by the

locksmith technician. The emphasis is on basic skills, such as key origination, codes, bypass techniques and identification, encompassing automotive, commercial and basic electronic systems.

Upon completion of the initial diploma, students have several options from which to choose. They can go directly to work as an entry-level technician, continue with an additional 48 credits to earn an Associate of Applied Science Degree in either Security Technician/ Locksmithing or Security Management, pick up an advanced certificate in a specific area, or work toward certification by the Associated Locksmiths of America.

**W**hether a person is looking for a short-term certificate in advanced skills, a one year diploma in hands-on locksmithing, an associate degree in locksmithing or security management, or various combinations, Pine Technical college can meet their needs. They are also beginning to offer other options for those already working in the industry. Through interactive television, e-mail and the internet, they soon will have the capabilities to deliver some courses to persons at their home or work site throughout the country. Locksmithing courses during the evening and weekends are currently organized by the college's continuing education department. The college is already offering eleven security management courses via the internet, and, according to Heckman, several locksmithing courses should be on line by early spring.

A high school degree/ GED, criminal history check and letters of reference are all that are required

for entrance into the program. Resident tuition runs about \$48 per credit, and non-residents pay about \$90 per credit. Financial aid, on-site child care, career services and other student support services are also available. The college is nationally accredited and all programs are approved for veterans' benefits.

For more information call PTC's Admissions Office at 800-521-7463 or visit our web site at [www.ptc.tec.mn.us](http://www.ptc.tec.mn.us).

### **Other schools and educational sources are:**

#### **Acme School of Locksmithing**

11350 S. Harlem  
Worth, IL 60482  
708-361-3750  
Fax: 708-448-9306  
Course Type: Res.

#### **California Institute of Locksmithing Inc.**

14721 Oxnard St.  
Van Nuys, CA 91411

#### **College of Security Technology & Management**

12800 South U.S. 71  
Grandview, MO 60430  
816-765-5551  
Fax: 816-765-1777  
E Mail: [CSTMAQMI.COM](mailto:CSTMAQMI.COM)  
Web: [www.MARKETLYNX.COM/CSTM](http://www.MARKETLYNX.COM/CSTM)

#### **Colorado Lks. College Inc.**

4991 W. 80th Ave. Unit 103A  
Westminster, CO 80030

#### **Foley Belsaw Institute**

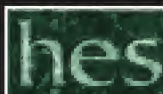
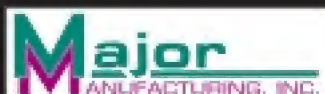
6301 Equitable Rd.  
Kansas City, MO 64120  
800-821-3452 816-483-4200  
Fax: 816-483-5010  
Course Type: Cor.



2. Pine Technical College





**Golden Gate School of Lock Technology**

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Oakland, CA 94608

**Granton Institute of Technology**

263 Adelaide St.  
West Toronto Ont. CANADA M 5H 1Y3  
416-977-3929

Fax: 416-977-5612

E M ail:

INFO@GRANTONINSTITUTE.COM

Web:

www.GRANTONINSTITUTE.COM

**L.T.C. Training Center**

P.O. Box 3583

Davenport, IA 52808-3583

800-358-9393, 319-322-6669

Fax: 319-324-7938

Course Type: Cor.

**Lockmasters Inc.**

5085 Danville Rd.

Nicholasville, KY 40356

800-654-0637 606-885-6041

Fax: 606-887-0810

Web:

EDUCATION@LOCKMASTERS.COM

Course Type: Bth.

**Locksmith School Inc.**

3901 S. Meridian St.

Indianapolis, IN 46217

317-632-3979

Fax: 317-784-2945

Course Type: Res.

**Locksmithing Institute of America Inc.**

226 Fairfield Rd.

Fairfield, NJ 07004

**LTC Training Center**

P.O. Box 3583

Davenport, IA 52808-3583

800-358-9393 319-322-6669

Fax: 319-324-7938

Web: www.LRC-INC.COM

Course Type: Corr.

**Messick Vo/ Tech Center**

703 South Greer

Memphis, TN 38111

901-325-4840

Fax: 901-325-4843

Course Type: Res.

**North Bennett Street School**

39 North Bennett St.

Boston, M A 02113-1998

617-227-0155

Fax: 617-227-9292

Course Type: Res.

**Northern Melbourne Institute of Tafe Cnr.**

Bell St. & Waterdale Rd. Heidelberg

West Victoria Austr.

3081 613-9269-8687

Fax: 613-9269-8673

E M ail: GARRYW-

LOCK@NMIT.VIC.EDU.AU

Course Type: Res. Web:

www.NMIT.VIC.EDU.AU

**NRI School of Locksmithing**

4401 Connecticut Ave. NW

Washington DC 20008

800-321-4634, 202-244-1600

Fax: 202-244-2047

Course Type: Cor.

**Pine Technical College**

1000 4th St.

Pine City, M N 55063

800-521-7463, 320-629-6764, 320-629-7603

E M ail: HECKMAN;@PTC.TEC.MN.

Web: www.PTC.TEC.MN.US

Course Type: Res.

**Prince George's Community College**

301 Largo Rd.

Largo, MD 20774-2199

301-322-0871

Fax: 301-386-7502

E M ail: MO5@EMAIL.PG..CC.MD.US

Web: PGWEB.PG.CC.MD.US

Course Type: Res.

**Professional Career Development Institute**

3957 Parkway Lane

Norcross, GA 30092

Red Deer College

Box 5005 Red Deer

AB Canada T4N 5H5

403-342-3450

Fax: 403-342-3576

E M ail:

SHAUN.LOVELL@RDC.AB.CA

Course Type: Res.

**School of Lock Technology**

1049 Island Ave.

San Diego, CA 92101

619-234-4512, 619-234-5937

E M ail: GRAH@GRAHSECURITY.COM

Web: www.GRAHSECURITY.COM

Course Type: Res.

**School of Lock Technology - Orange**

302 W. Katella Ave.

Orange, CA 92667

714-633-1366

Fax: 714-633-0199

Course Type: Res.

**School of Lock Technology-Austin**

509 Rio Grande St.

Austin, TX 78701

888-511-8874, 512-473-8874

Fax: 512-472-4838

E M ail: OCOTHRON@AOL.COM

Web: www.CITYSEARCH.COM

"AUSTIN"

Course Type: Res.

**Southern Locksmith Training Institute**

1387 Airline Drive

Bossier City, LA 71112

318-227-9458, 318-746-1734

**The Academy of Locksmithing**

2220 Midland Ave. Unit 106

Scarborough Ont. Canada M 1P 3E 6

888-272-8265, 416-321-2220

Fax: 416-321-5115

E M ail: TAOL@PW.CA

**Universal School of Master Locksmithing**

3201 Fulton Ave.

Sacramento, CA 95821

916-482-4216

Fax: 916-485-9385

Course Type: Bth

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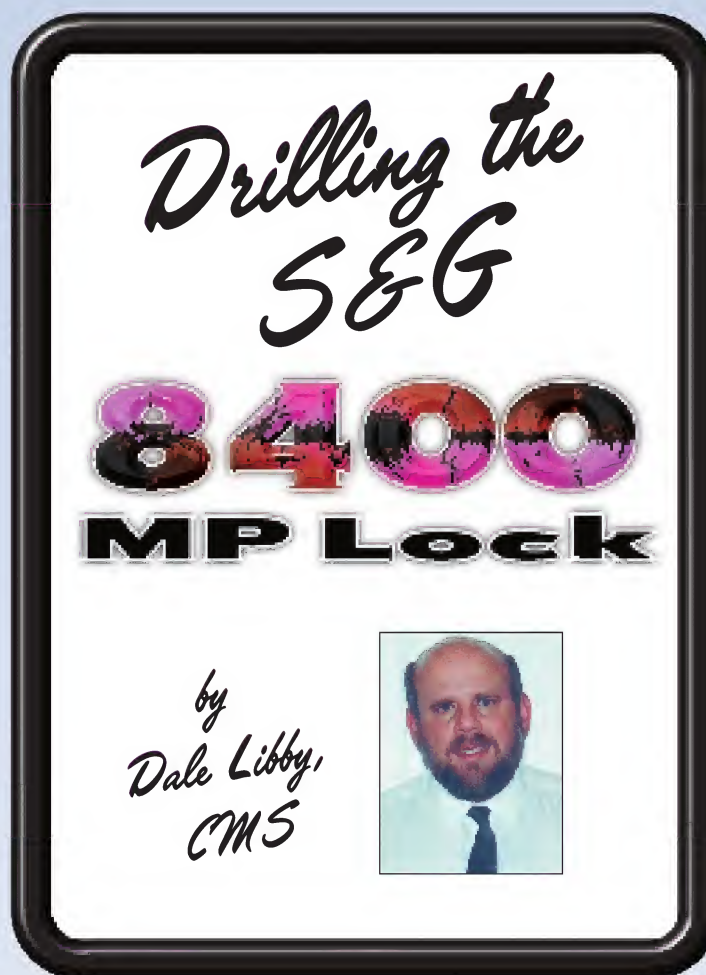


A few months ago, in this column, I covered drilling open a Diebold Government Services Administration (GSA) rated container. I accomplished this feat by strapping and bolting the Magnum Drill Rig to the container. A good fixed drill rig makes opening GSA rated files a much easier task than other types of drill rigs.

My friends at StrongArm (the Volosings) contacted me after that article was printed to ask why I did not use the StrongArm Mini-Pro rig I had just purchased. After all, it has a special modification at the base plate template to allow it to be attached over the dial center hub after the number ring has been drilled off.

At first, I was baffled. There was no mention in my set of directions about using the drill rig for this purpose. I have since received a revised version that includes specific directions for drilling the S&G 8400 Series Group 1 combination lock.

In my archives I have a fire resistant file cabinet with an S&G 8400 series lock on it. It was not GSA grade by any means, but still had a very decent hard plate to drill through. It was manufactured by the



Safe-Cabinet Laboratory. I will attack this lock from the inside out to allow for a clearer understanding of the drilling procedure.

As a general rule, locks used on GSA file cabinet type containers are mounted Vertical Down (VD) or Horizontal Left (HL). The bolt points towards the center line of the

drawer and blocks the movement of a bolt or pair of bolts.

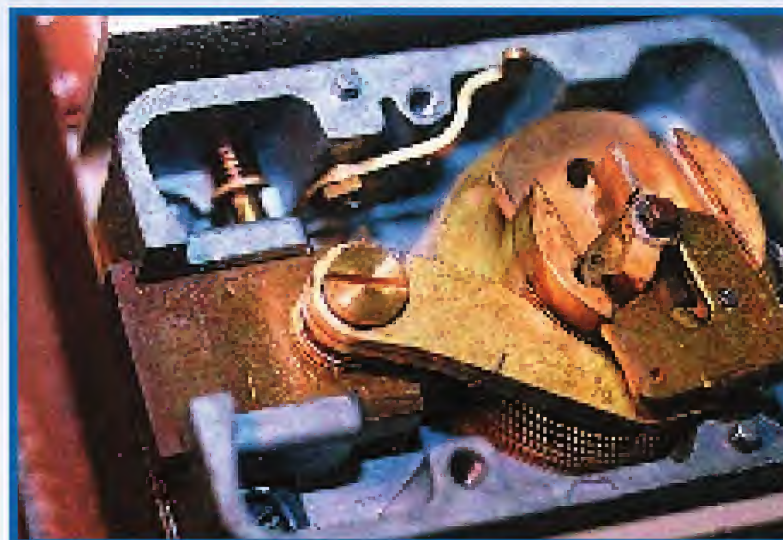
Locks used on insulated file containers will usually point away from the center of the drawer and are mounted Vertical Up (VU) or Horizontal Right (HR). Some may use the extended bolt or will have the combination lock protrude into the top or side of the cabinet. Others, like the Hercules file cabinet, feature a push in bolt — either keyed or not — that will function as a secondary locking mechanism. It is held back by the end of the combination lock bolt.

The lock on my particular container was mounted Vertical U (VU). The back of the lock is shown in Photograph 1. What is apparent from the back is that the back of the lock has a raised disk with the legend "Manipulation Proof" (MP) on it. The height of the back of the case is to allow the slide mechanism to turn. This mechanism keeps the lever away from the wheel pack and drive cam when engaged. There is also a hole in the back cover of the lock to allow the inner spindle to turn.

The second major difference is the position of the two cover screws.



1. Back of typical 8400 Manipulation Proof lock. Standard change key must be slightly modified to fit correctly.



2. Inside of MP 3 wheel lock. Note slide mechanism over end of lever and the serrated wheel edges adjacent to lever.



They are NOT opposite of each other but are instead offset.

The standard three wheel 6730 series change key will not work in this lock. The proper change key for the old style 8400 locks is an S&G 8400 key. A U12 change key can be used as a substitute. Newer versions use a U8 change key. The newer versions can be identified by a recess around the change key hole.

The lock is opened by dialing the combination in the normal manner. Bring the dial back to ZERO, hold the outer dial and turn the inner spindle which will open the slide cam allowing the lever fence to drop into the gates. Then turn the dial to stop (right). This procedure is cumbersome at best.

Because the gates are narrow and the edges of the wheel serrated, the combination must be "Right-On" or it will not work. This is the job of the safe technician when changing the combination. He must do it correctly or the lock will not consistently open which can be a big aggravation.

Again, the lock in this file cabinet was mounted VU. Photograph 2, shows the lock with the back cover removed. The bolt is unlocked in this picture. Upon close observation you can see the sharp edges of the

wheels next to the lever. The slide mechanism covers the end of the locking lever which is in the open position.

The internal relocking trigger in this lock can be seen if looked at closely. To neutralize this spring energized pin, a hole must be drilled near the mounting bolt to retract the pin. On newer S&G model locks that use a spring lever as opposed to a spring bolt, the relock lever can be deactivated through the spindle hole.

#### *Opening Options:*

There are many ways to neutralize the 8400 Series Group 1 lock. Whichever way you choose; you have a job ahead of you. I will use the StrongArm drill

rig, but other alternatives will be mentioned with opening strategies.

1. Some safe technicians like to break off the dial and inner spindle, and then remove the dial ring before drilling. This is a fast method to start drilling, but it makes turning the dial and eventually the inner spindle very hard to do. The dial is broken off with a very large vice grip pliers. Then the dial ring is removed before drilling.

The target for



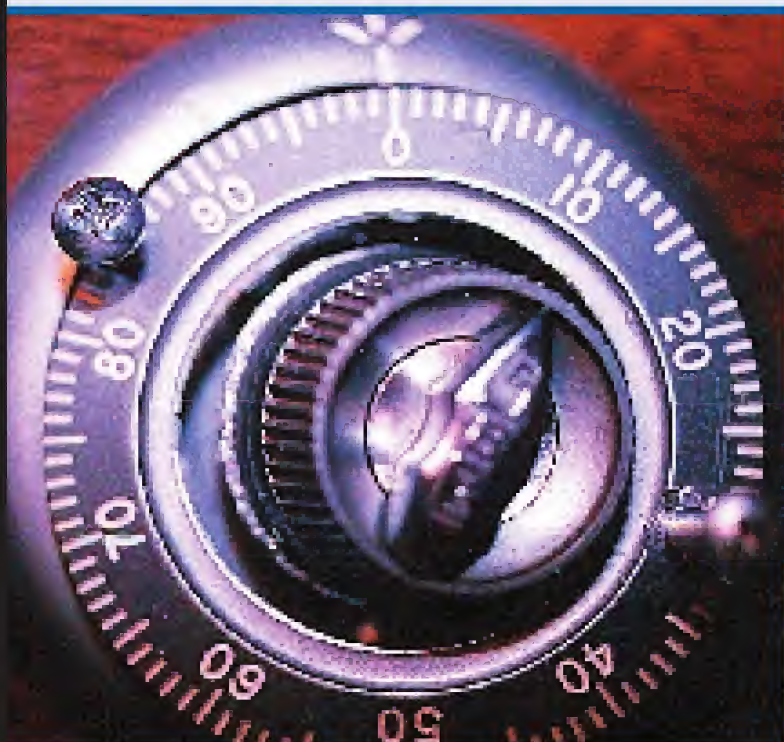
**4. Number ring being removed after drilling with a 1.5 inch hole saw.**

drilling this type of lock is always the end of the lever fence and the drop-in point. This, like on regular 6700 series locks, is at 97 on the dial when the lock is installed Horizontal Left (HL). Depending on how the lock is handled, the drop in point will vary accordingly 25, 50, or 75 numbers from the 97 position.

The reason to drill for the exact drop-in point is manifold. One, there is no guessing about where the drop-in is. The lock can easily be dialed without the use of borescopes.

The main reason for drilling at the drop in position with the 8400 series lock is that if a malfunction occurs the fence can be drilled, hole sawed, or bent into oblivion. Once the fence is removed, the lever will drop into the drive cam after the inner spindle has been turned. With this one hole at 'ground zero', there are many assault and onslaught tactics available through the one location.

If you are drilling a GSA container it can be very difficult to



**3. S&G typical 8400 Series knob with butterfly. Note screws at 85 and 30 to hold dial stationary.**



make just one hole in the unit when drilling for the combination lock. Make that hole count. Drill for the drop in. You will be replacing the lock anyway so positioning is most important for your one hole opening.

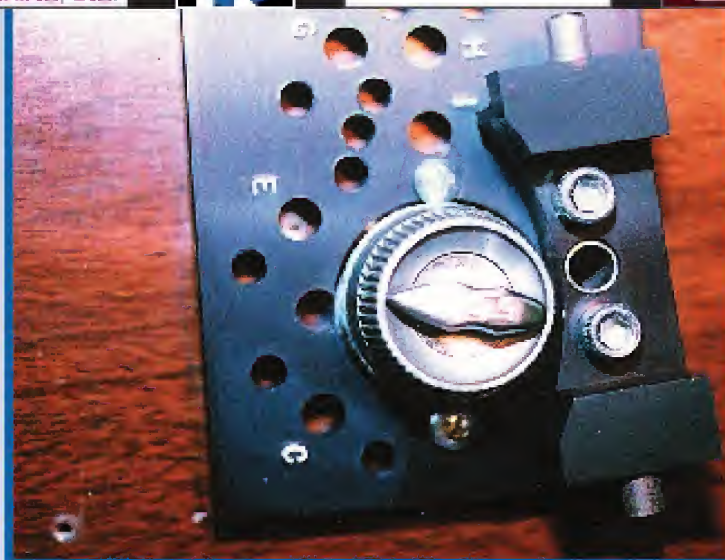
2. There is a new tool that attaches to the dial on the 8400 and 8500 S&G Group 1 combination locks. It positions an entry hold precisely at the drop in position. You do not have to remove the dial or hole saw the dial ring. Once the hole is in the correct position, just bend the lever end to the center of the hole you drilled and insert a long "Fence hole saw" and remove the fence by drilling.

3. The third way, which I prefer, is to use a 1.5 inch hole saw without center guide drill and remove the outer number ring from the dial. Continue to drill the dial ring off while being careful not to bugger up the dial ring mounting screw holes. Now it is time to drill for the lever fence. You can either use a drill rig that attaches to the safe (Magnum Type) or a drill rig that screws to the safe front. A lever rig will also work, but requires a lot more work and correct drilling technique.

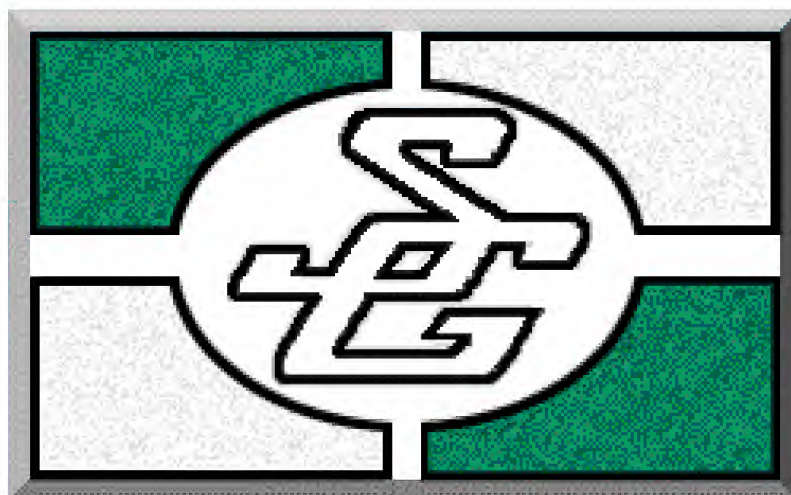
I love lever rigs, but fixed rigs are better in most circumstances if mounting attachments and room are considered equal. What is better about fixed rigs is that they are easier to use, more accurate, and fewer drill bits are needed overall. Plus, it makes for a better show for the audience (always important).

Let us go through a typical opening. In Photograph 3, we see the diabolical S&G 8400 Series dial and inner butterfly. The first task is to "pin" the dial so it will not move. I use #8 self tapping sheet metal screws with drill points. Again, in Photograph 3, I have secured the dial from rotating by installing screws at 85 and 30 on the dial. These numbers are arbitrary. Any numbers can be used.

Photograph 4 is the aftermath of drilling with the hollow 1.5 inch hole saw. The number ring comes off and leaves the inside hub and inner spindle free to turn. Before removing the number ring, mark the Zero (0) position on the inner hub. This will facilitate the opening by



5. StrongArm S&G plate attached for lock mounted VU (Vertical Up).

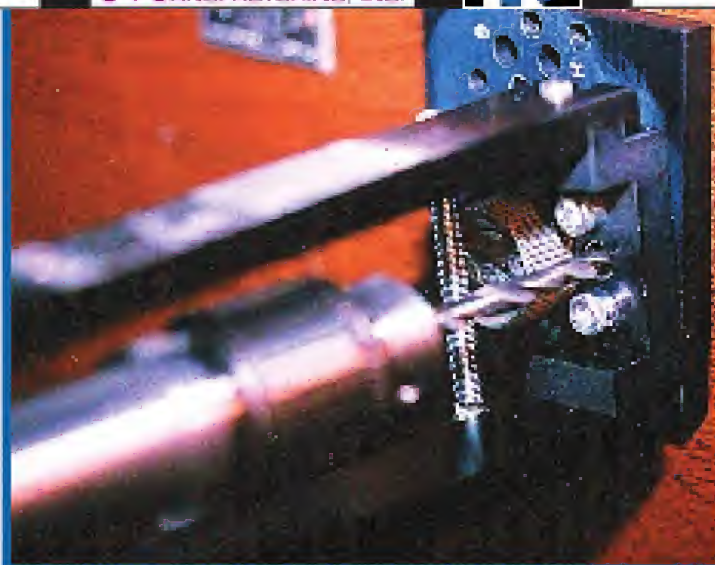


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6. StrongArm  
Mini-Pro rig  
attached and  
drilling for  
fence and  
gate reading  
(VU).



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letting you know the precise position to put the hub while turning the inner spindle.

Drill through the dial ring being careful not to destroy the dial ring mounting holes. This is for the attachment of the StrongArm Mini-Rig. Photograph 5, shows this clearly. Also note the mounting lugs on the template for the drill rig. In the old days, one had to screw two thumb screws to attach and detach the rig from the base. Now all one has to do is to spread the legs of the rig to remove and connect the rig for action. The base plate template in this picture is aligned for the Vertical Up (VU) position of the combination lock.

The mini-rig is shown in Photograph 6, attached and in action, drilling for the fence and gate reading. I thought that this would be an easy no nonsense opening, and I was almost right. I ran into a 1/4 inch hardplate that actually required the use of a hardplate drill bit.

Luckily, I had just received some "SUPER" StrongArm hardplate drill bits. These bits are incredible and they are everything they say they are. Everything that StrongArm says about these bits is true. I have used these bits on several safes. They do cut longer and stay sharp, and they are "Super Good."

The prices for these bits is not much more than the regular StrongArm bits. I've never had a bad drill from StrongArm, and now one might get more than one opening from the same bit, truly a savings in inventory.

In conclusion, when facing the dreaded 8400 series lock, choose your attack method and go for the end of lever fence position. This will be your best and easiest shot when drilling for the lock. Another method for gaining access to GSA containers is to hole saw the bolt bars with a carbide hole saw. Get a fixed rig to drill with. I like the Mini-Rig Pro kit from StrongArm. It has everything you will need to drill most safes, including various mounting agendas and a dual function dial puller.

Open the S&G 8400 and Prosper.

For Further Information, contact:  
S&G at: (606) 885-9411.

For information on StrongArm call:  
(415) 952-7710 or (800) 710-8168.

**IRL**



# Quick Entry

## UPDATE

by  
Steve  
Young



### Toyota Land Cruiser and Lexus LX-450

The top line sport utility vehicle from Toyota is the Toyota Land Cruiser (see Photograph 1). All of the doors in these trucks are extremely well guarded and are very difficult to unlock. These vehicles, however, are equipped with a double-pane sliding rear window that can be unlocked without too much difficulty.

To unlock these trucks, I use the Tech-Train 1000 tool, which is essentially a 1/8 inch in diameter spring steel wire with a 90 degree bend at each end (see Illustration A). The tool is inserted between the sliding panes of the rear window and used to unlatch the catch on the forward pane.

Before the tool can be inserted you must first insert a wedge between the forward pane and the plastic strip that runs between the two panes. Insert this wedge carefully because too much force can easily break the window (see Photograph 2). Once you have enough room to insert the tool between the panes, slide it all the way forward until you can hook the end of the tool over the catch that is holding the window closed (see Photograph 3).

Hook the tip of the tool behind the spring loaded hook that is at the forward end of the catch. Once the tool is behind the hook, twisting it will lift the hook free of the bale that it latches into. When the hook is clear of the bale, slide the glass pane toward the rear of the truck just far enough so that when you release the tool it will not relock (see Photograph 4).

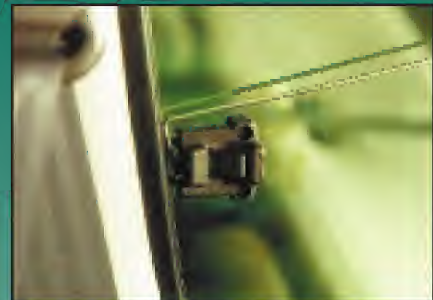
Make sure that you do not slide the window any more than absolutely necessary until after you have



1. Toyota Land Cruiser.



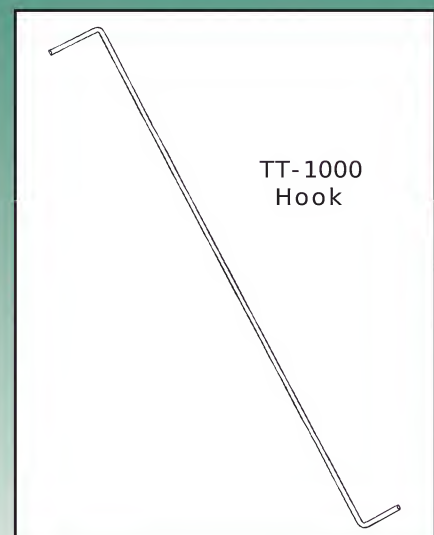
2. Insert wedge carefully.



3. Hook tool over catch.



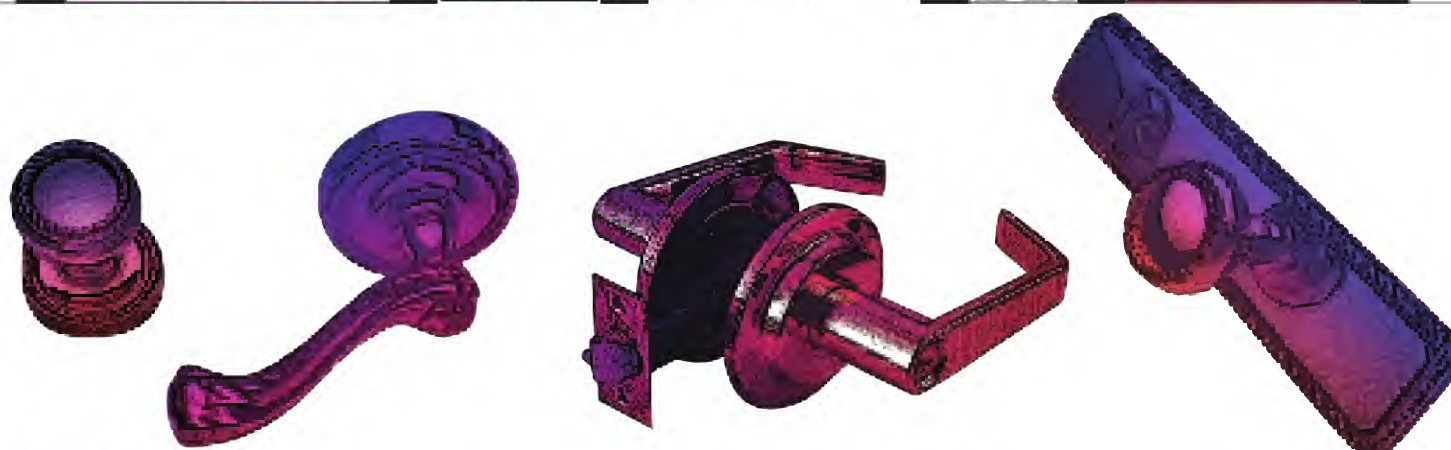
4. Release hook and open window.



A. Tech-Train 1000 tool.

removed the tool and the wedge. Once the sliding window is open, it is easy to unlock the truck by reaching in to operate the door handle of the rear door. **TRL**





# Decorative HARDWARE



## Baldwin Lifetime Entrance Collection

Baldwin Hardware Corporation has introduced The Lifetime Entrance, a first of its kind collection of exterior door hardware featuring The Lifetime Finish™ from Baldwin. All Lifetime Entrance products are guaranteed for life against tarnishing, mechanical and/or material defects.

With The Lifetime Entrance collection, Baldwin is the only manufacturer offering a complete line of quality hardware products for the home's entryway that is guaranteed against tarnishing from exposure to salt sprays, excessive hot and cold temperatures, ultraviolet radiation and humidity. The Lifetime Entrance collection includes entrance sets, knobs and lever sets, select styles of door knockers, bell buttons, letterbox plates, house numbers, kickplates and also hinges.



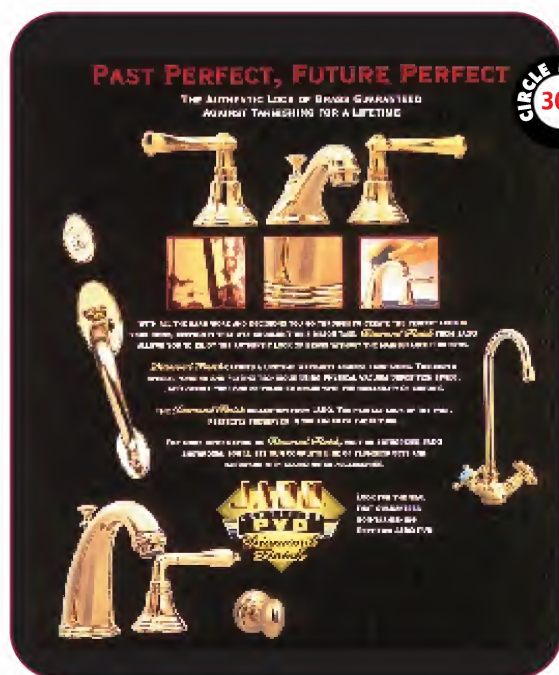
## Harloc's Woodland Lever

The Woodland lever from the Terra Series by Harloc features a non-handled design with reversibility, thus enabling the locksmith to maintain less inventory. Both the finish and mechanical parts are protected by Harloc's lifetime warranty, with spring assemblies standing up to years of use without suffering from "lever droop." Available in polished or antique brass or polished chrome or satin chrome, the Woodland lever comes in dummy, dummy with stem, passage, privacy, bathroom or entry functions.

Continued on page 60



Continued from page 58



### Jado's Diamond Finish

Diamond Finish products from Jado have the authentic look of polished brass with the durability of chrome. Products are created through a special forging and plating technique enabling the manufacturer to offer a lifetime warranty against tarnishing.

### Master Lock's Richmond Handleset

Master Lock's Richmond handleset adds elegance to entry-ways while providing high security.

For superior resistance to tarnishing, flaking and pitting, Master Lock handlesets come with the Durashine finish, and a 10 year warranty.

Master Lock door hardware features maximum security, "hands-free" mounting, and keyed-alike convenience. It also features a lifetime mechanical warranty.



### Mark's USA Gold Seal Collection

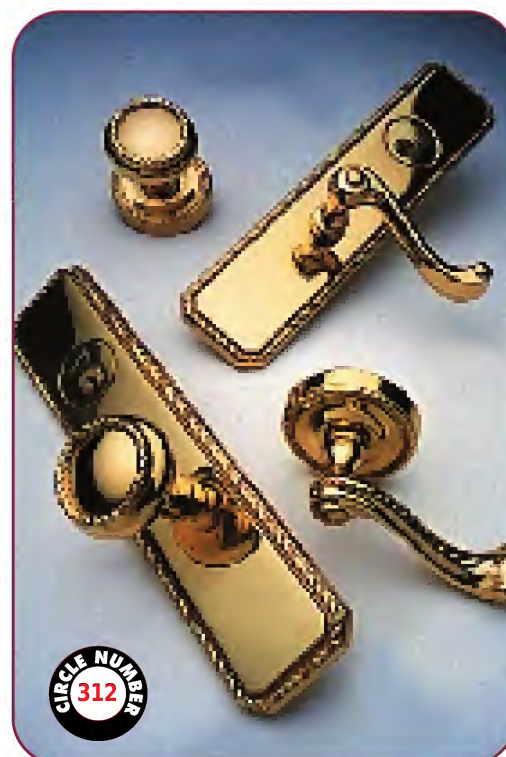
Marks USA introduces their Gold Seal Collection of decorative entry locksets in its Lifetime Warranted Finish. The finish warranty provides the elegance of bright brass without the risk of tarnish or corrosion. All lock-sets have a full lifetime mechanical warranty as well. This broad line of good looking entry locksets includes ten handles, sixteen knobs or levers with complimentary interior designs.

### Omnia Industries Solid Brass Rope Design

Omnia's elegant new rope design knob and lever with matching roses and plates are available as solid brass mortise entry locksets, as well as deadbolt locksets and matching interior latchesets.

The tailored beauty of the rope design is classic, yet sophisticated. The refined profiles of the knobs and levers along with the companion roses and plates, are enriched by an intertwined, three-dimensional rope treatment. The new series is available in polished brass, polished chrome, shaded bronze and a variety of additional finishes.

Exterior sets include Schlage "C" keyways for security and may be ordered in a variety of lock options, including single cylinder, double cylinder and panic-proof configurations.





### S. Parker Vandal-Resistant Cylindrical Leversets

S. Parker's unique, patented, free-wheeling leverset design allows you to rotate the lever handle up and down while the lockset remains locked. These sturdy, finely engineered barrier-free leversets are available in one and two step rose models and in satin chrome, polished brass or oiled rubbed bronze finishes in entry, store room and classroom functions.



The CXL8160 is a one-step rose with two fixed thru-bolt posts outside the standard 2-1/8" cutout for an extra secure installation that resists rattling and shaking. The CL7160 is a two step rose lock with convertible posts that allow you to do a standard install or use two detachable outside posts for a more secure installation. Choice of keyways is also available.



### Valli & Valli Designer Door Handle Sets

A distinctive line of door handles designed by one of the world's prominent architects, Sir Norman Foster, is the newest in the Fusital series.

"The handle of the door," Foster explained, "is an important part of the furniture of a building and literally one of the few points of physical contact. It has to work well for those who use it, but it also has to feel good and must look good."

The construction of the handle is similar to that of the renowned Swiss army knife. It is comfortable to hold, provides volume where needed, and is aesthetically versatile in a range of finishes and textures such as metal, wood, black rubber or leather.

### Weiser Lock Home Series Entryset

Entrysets are a new addition to the Welcome Home series product line's keyed entry product offering. Entrysets provide a fashionable look for homes featuring a decorative escutcheon plate and knob or lever, while adding peace of mind with full, one-inch deadbolt security. Entrysets add a stylish accent to front side and French doors and are available at a unique, competitive price.



The product is covered by a full Lifetime Mechanical Warranty as well as the exclusive Brilliance Lifetime Anti-Tarnish warranty. Entryset also surpasses the highest residential ANSI Grade II testing assuring reliable security. **TRL**

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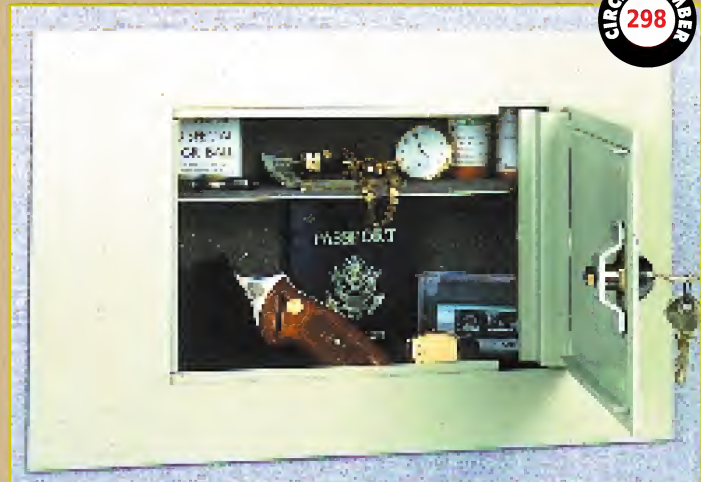


# GUN SAFES

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THAN EVER BEFORE, IF YOU  
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THERE IS A SAFE TO FIT  
YOUR NEEDS.**

## Buddy Products

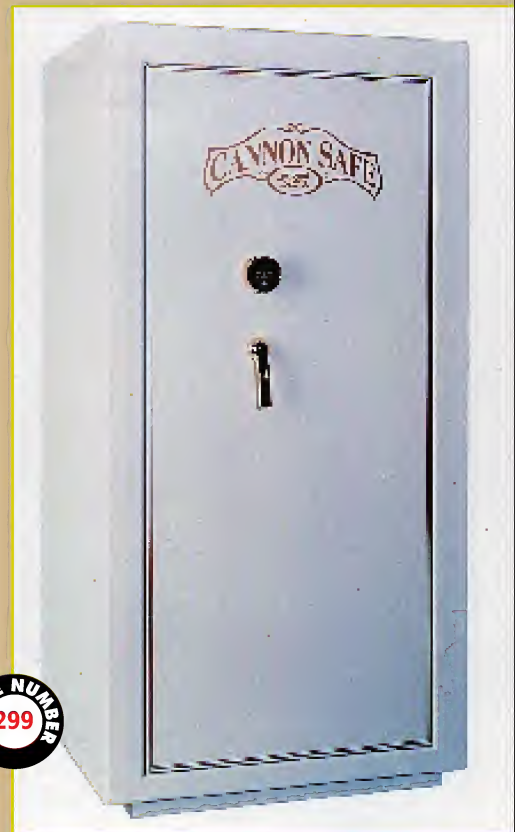
Heavy duty steel plate construction throughout makes the Wall Vault by Buddy Products a must have for all valuables. Featuring 14 gauge steel in the storage compartment and 11 gauge door and face, this wall vault is virtually burglar proof. Foam lined interior and shelf protects jewelry and valuables from nicks and scratches. It also features a Medeco cam lock, 9-7/8" x 6-1/2" opening, 14-3/8"W x 3-3/4" D x 8-1/2"H compartment and a putty finish. It is made in the USA.



CIRCLE NUMBER  
298

## Cannon Safe

Cannon's new "Torch Resistant" safe is now in full production. It offers a massive pent wall door, and has a Quad wall body. The safe has UL listed security and UL rated ball bearing hard-plate. It also features top, bottom and side 1" locking bolts. High gloss colors come standard with the handsome silk screened logo and are complimented by the brass plated handle and dial.



CIRCLE NUMBER  
299



Continued from page 64

### Fort Knox Security Products

Fort Knox Security Products offers over 26 different sizes and models, along with a large selection of options and accessories. Our series include the Yeager, Executive, Guardian, Gold, Protector and Defender. Every Fort Knox safe comes standard with Certified Fire Protection and innovative security features such as concealed ball bearing hinges, ball bearing hardplate, drill deflectors, quadrafold door frames and a uni-body construction. All this is complemented with an unequaled Lifetime Warranty.



### Frontier Safe Company

Frontier Safe Company continues to increase its market share with a protected dealer network.

The all improved product line for 1998 is featured in our full color brochure. Frontier Safe Company maintains a superior quality and design by using products like Sargent & Greenleaf locks, which are standard on all of their safes. All models are UL listed with fire liners and smoke seals.



### Liberty 1998 Presidential Series

The 1998 Presidential combines an Omega Point Laboratories 1550 degrees Fahrenheit fire certification, state-of-the-art glass relocker, massive door bolts and a spacious body with a distinctive beveled edge. All Presidential safes feature Liberty's one and a quarter inch HiSecurity™ composite door and massive one and a half inch insulated body. Liberty's Presidential Series also offers a glass relocker system to protect the lock and mechanism.

A 24-Karat gold-plated, precision-crafted handle operates up to 26 one and a half inch diameter active bolts located in the top, bottom and sides of the door.

An industry first, Liberty's Presidential series features a breathtaking beveled look on the safe's front edges.



### Palmer Security Products

Palmer Security Products has introduced two new quick release plates for their drawer safe. The unique design of the plates lets your customers take their drawer safe with them. When you place the drawer safe in the quick release plate, the safe locks itself down as you close the drawer. It will not release until you open the safe. The frames can be mounted to the floor or beneath counter tops and desks. This carrying system is the perfect solution for gun owners transporting a handgun between various locations.



### GunVault

You can open a GunVault gunsafe in seconds, with one hand, even in the dark. Choose from over 26,000 user selectable access codes for your GunVault gunsafe. A built in computer blocks access after five wrong code entries. An internal

battery power supply provides maximum security and easy portability. A GunVault gunsafe mounts almost anywhere and works in any orientation. The new tubular keylock provides a mechanical override of the latch in the event of a lost code. GunVault gunsafes are 16 gauge steel and foam lined.





### National Safes

National Security Safes are known for their high quality, security and craftsmanship. On October 29, 1997 they fire tested their Inferno 32 at Omega Point Laboratories in Elmendorf, Texas. The safe passed successfully 1700° for one hour while following the ASTM E 119 time/temp curve standards. Therefore, they continue reaching their main goal of manufacturing the world's finest safe.



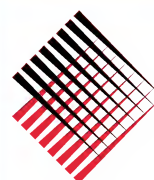
### Perma-Vault

The "Perma-Vault" All Purpose Compact Security Safe is an affordable B rate burglary safe for the convenient protection of your valuables. Pre-drilled holes on the bottom permit bolting down in your dwelling, motor-home, car trunk, etc.

The all purpose compact security safe is cushioned on the bottom interior to protect your valuables and permits easy access for removal of contents. The safe is available with a UL listed Mas-Hamilton programmable electronic digital lock.



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# Closer Repairs

## with National Door Controls



by Jake Jakubowski

**H**ow would you like to turn your next single door rekey (let's call it a \$70 job) into oh, how about, a three hundred and seventy-five dollar job, PLUS the seventy bucks for the rekey? No, I'm not losing it, and yes, I am going to show you how to do it.

If you're a "purist" who believes you should only work on locks, don't bother reading any further. However, if you are looking for ways to fill in the slow periods or make up for the business so many folks claim to be losing to bag boys with Slim-Jims, home centers with pinning kits and carpenters who install deadbolts, then - this "alternative" just might appeal to you.

As you probably already know, the heart of any door control system is the door closer. The door closer closes the door, prevents the door from opening (backcheck) too far and keeps the door from slamming shut. Door closers are so common, that when they are operating properly, most folks aren't even aware of them or the control they provide.

Just like a human heart, we don't pay much attention to the closer until it gives us a problem. And, like the human heart, the symptoms of a failing closer - leaking oil, jerky operation, etc. - are generally ignored until the closer simply quits doing the job it was designed to do. Then it gets everybody's attention!

I'm sure that many of you reading this will not hesitate to replace a broken, surface mounted door closer. I'm certain that there are a great number of you that will actively seek out that sort of work and, when you

see a leaking or malfunctioning surface mounted closer, you'll quickly bring it to your customer's attention; replace it and happily pocket some extra shekels. Sort of like a heart transplant operation: You transplant a closer from the box to the door and the shekels from your customer's pocket to yours!

But what do you do when you find a concealed overhead closer (Kawneer, Dorma, etc.) or a concealed floor closer (Rixson, etc.) that's leaking oil or malfunctioning? If you're like the majority of your locksmith brethren, you say: "No thanks" and walk away. After all, who wants to spend hours excavating a defunct Rixson from the floor and hundreds of dollars (your cost) for a new one. Plus more hours to put it in the hole, set it in concrete, and of course, replace the door and other hardware!

Unless, like me, you're fortunate enough to meet up with Jeff and Robert Hales of National Door Controls (1-800-231-0402) who showed me a quick, easy and profitable way of restoring control to a malfunctioning



*1. A Rixson off-set floor check which had given up. You can see all the oil and soil that had accumulated around the threshold as a result of the closer failure.*

door with a broken or worn out concealed (top or bottom) closer.

In this case, the door - a single action, which opened out only - had a Rixson off-set floor check on it, which had given up the ghost (see Photograph 1). You can see all the oil and soil that had accumulated around the threshold as a result of the closer failure.

The first step to repairing this door is to remove the door. When doing so, first securely block, or wedge, the door to stabilize it while removing the

*Continued on page 78*



Continued from page 68



**2. The door was stabilized with a Stanley Wonder Bar before removal.**

hinges. On the door shown, this was accomplished by using a Stanley Wonder Bar (see Photograph 2) and removing the top and center door pivot (see Photograph 3). Now, all you have to do is lift the door off of the bottom pivot and stand it on edge so you can remove the bottom pivot and replace it with NDC's #101 (see Photograph 4).

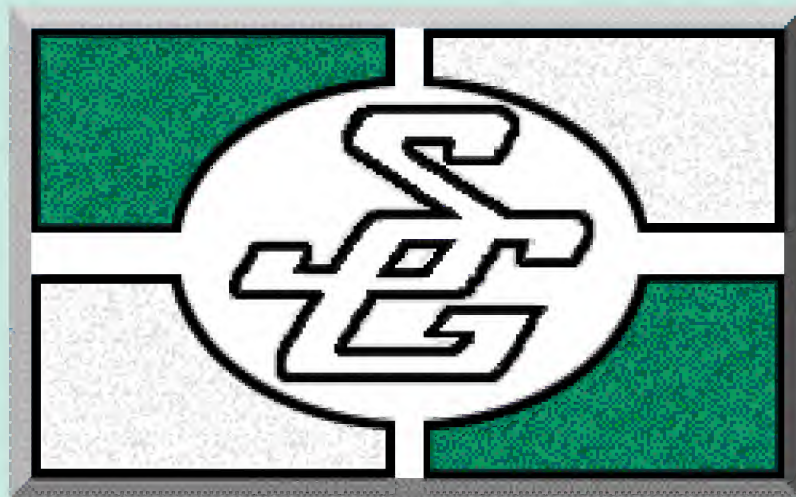
**N**ext you assemble the NDC bearing and cap (see Photograph 5) and place them over the spindle of the Rixson closer as seen in Photograph 6. After that, it's simply a matter of placing the door with the new NDC off-set

bottom pivot in place, over the bearing and cap (see Photograph 7). Rehang the door and install a new surface mounted closer of your choice. Again, use the Stanley Wonder Bar to stabilize the door while reinstalling.

This entire operation took about thirty minutes. That's opposed to the many hours required to dig



**3. Removing the top and center door pivot.**



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**4. Stand the door on edge so you can remove the bottom pivot and replace it with NDC's #101.**

out and replace the OEM closer. I feel certain that if I had not been in the way taking photographs and asking questions, Jeff and Robert could have



**5. Assembly of the NDC bearing and cap.**

accomplished this retro-fit in about half that time ... at a cost to the customer of just a tad over a third of what an OEM replacement would cost!

**T**he second door we (well, I was there!) did, had a center hung floor check and was a double action door (i.e., it swung both ways). On



**6. The NDC bearing and cap placed over the spindle of the Rixson closer.**

this particular door there was an end plate and a threaded stud that needed to be removed before the door could be taken down (see Photograph 8). Then, the center line of the bottom closer arm pivot was marked on the bottom of the door and the old closer arm removed (see Photograph 9).

A bearing and cap (NDC Kit #100) was then put over the closer's spindle and the new receptacle plate was installed on the door's bottom (see



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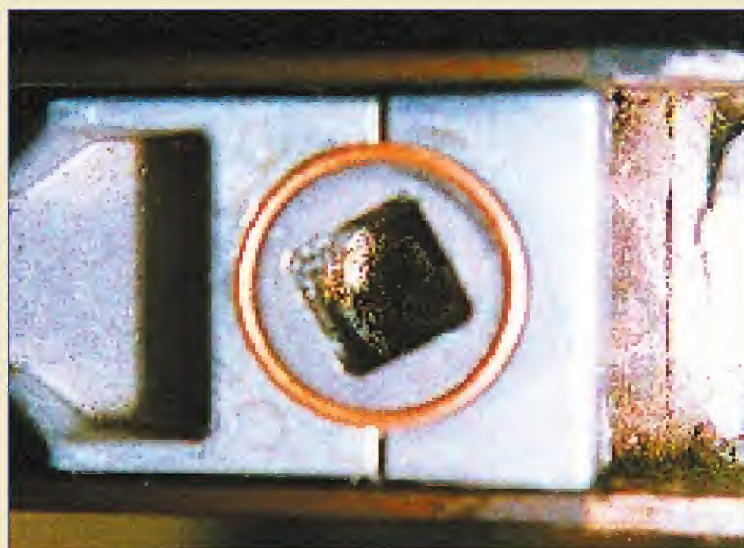
*7. Setting the pivot over the bearing and cap assembly.*



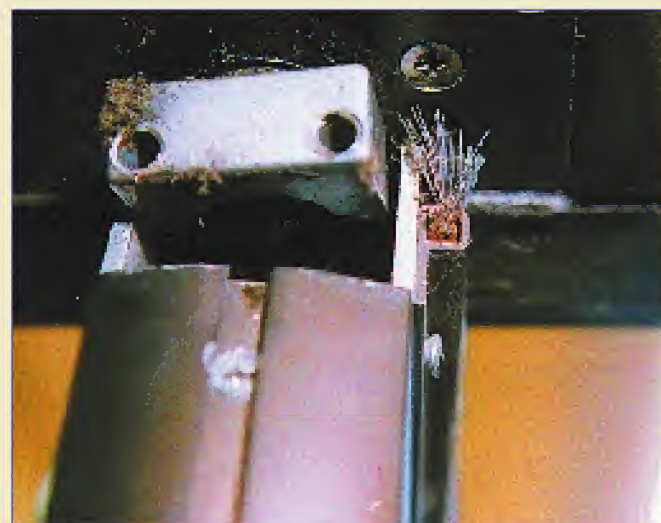
*8. On this particular door there was an end plate and a threaded stud that needed to be removed.*



*9. The closer arm pivot is marked on the bottom of the door and the old closer arm removed*



*10. A bearing and cap (NDC Kit # 100) is put over the closer's spindle and the new receptacle plate was installed on the door's.*



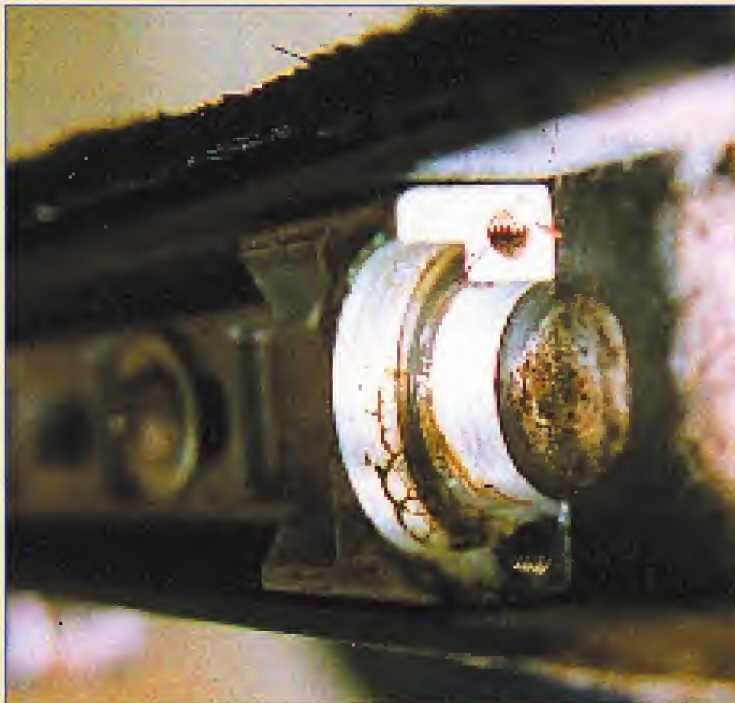
*11. After securing the door with the Stanley Wonder Bar, the end block of the old closer was removed.*

Continued on page 82



Continued from page 80

*12. Once the door is down the rest of the old closer arm is removed.*



Photograph 10), and the door was rehung with a new, surface mounted closer. Again, the time was about thirty minutes.

As with the first door we did that morning, the customer saved about two thirds the cost of having the original concealed closer replaced with

the same model. With savings like that, a customer is much more apt to have the retrofit done.

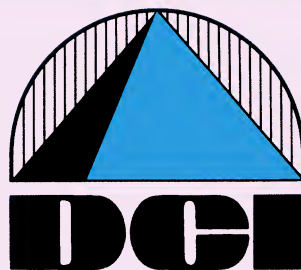
The third door we did that morning had an overhead concealed closer — probably a Kawneer or Jackson. After securing the door with the Stanley Wonder Bar, the end

block of the old closer was removed (see Photograph 11). It's held on by two Allen screws and once removed the door was taken down.

Once the door was down, the rest of the old closer arm (see Photograph 12) was removed and the NDC (#102) Pivot arm and shim were installed (see Photograph 13).

If you follow the arrow, you can see where we had "nicked" the top of the door to mark the center line of the pivot. Although I did not point this out on the other doors, we had marked them in the same manner. It allows you to "set" the new arms in place without having to make adjustments after the installation.

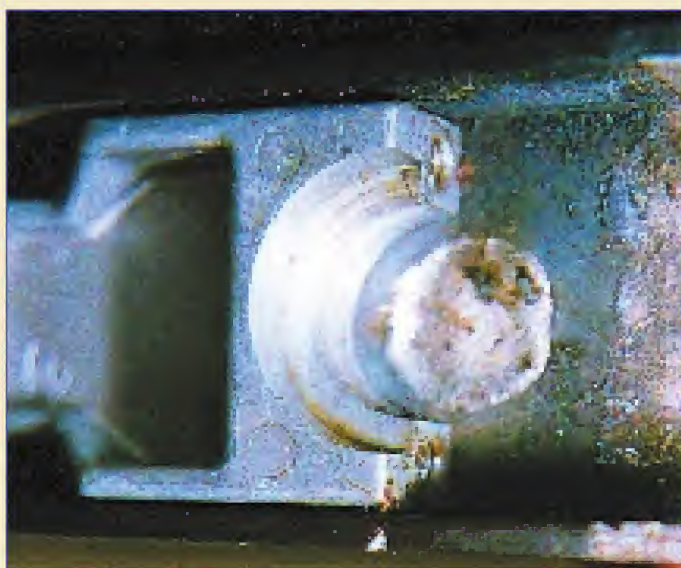
Photograph 14, shows the bearing assembly in place on the overhead closer's spindle. This bearing is what allows the deactivation of the original closer and permits the door to swing freely. Again, the principle is the same for all three types of doors. After the bearing was in place and the pivot arm installed, all that was left was to rehang the door and install a new surface mounted closer. Once more, just a shade under a half an hour to do the job and at a substantial savings for the customer.



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**13. ANDC (#102) Pivot arm and shim installed.**

I left National Door Controls with a couple of their retrofit kits and the idea in mind that the next time I ran across a door with this problem, I was going to say: "Hey! I can fix that!" A couple of days later, I had two doors lined up and completed each in about an hour. Not too bad for an ol' boy that didn't move quite as fast as he used to.

With National Door Controls bypass kits you can add some serious

and, at the same time, help your customer gain the advantages and cost savings of low-cost, high quality surface mounted closers. I've since made it a habit to actively solicit concealed closer retrofits whenever I do a job where a concealed closer is leaking, jerking, or failing to do the job it was designed to do. Like, anything else, I don't get every one that I solicit, but I get enough to keep it interesting.

shekels to your overall income bypassing defective concealed overhead or concealed floor closers with NDC's Deactivator Pivots



**14. The bearing assembly in place on the overhead closer's spindle.**

NDC's Deactivator Pivot Kits, and your favorite surface mounted closer can bypass Rixson, Dor-O-Matic, Pittco, Kawneer, Jackson, Dorma, MAB, R&K and other concealed closers. And, NDC's kits will allow you to do it quickly, easily and very, very profitably! Sure it's an alternative, but, believe me when I say it's an alternative that can not only help you increase your earnings, but will put you way ahead of the competition.

Y'all heah what I'm sayin', now?

For more information on National Door Controls products call: (1-800-231-0402). Tell 'em: "Jake, told me to call."

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# Road Rally

A showcase of locksmith service vehicles.

If you think your vehicle has what it takes to be featured here, send photographs and descriptions to:  
The National Locksmith, Road Rally, 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861.



Owner: Chuck Frazer,  
Madera, CA  
Model: 1990 Ford  
Festiva



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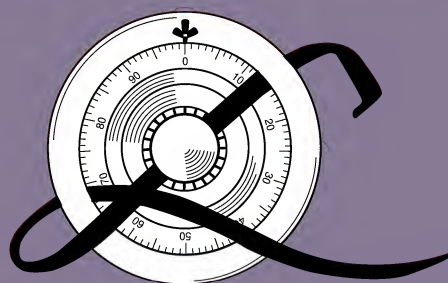
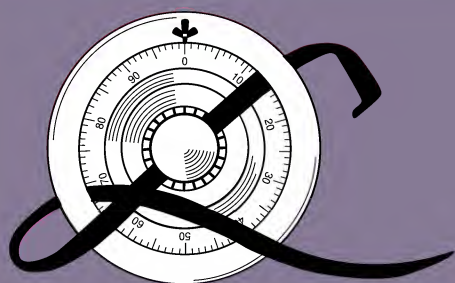
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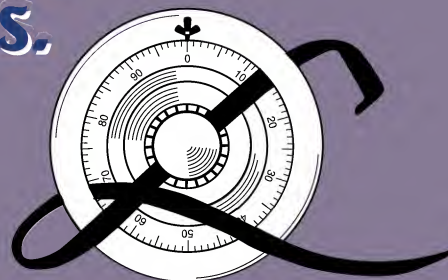
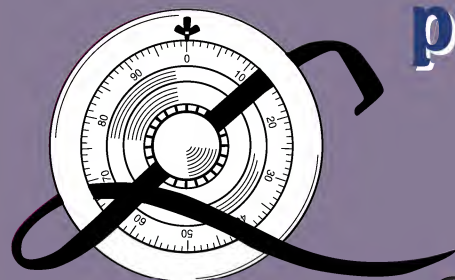
## Road Rally

Owner: David Balaguer,  
Newark, DE

Model: 1995 Ford  
E150 Cargo Van



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44 year history of  
training security  
professionals.**



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# BEGINNER'S CORNER

## Cleaning Up With Laundromat Locks.



by  
**Jim  
Langston**

**T**o be a full service locksmith, you must be prepared to tackle all of the customer's needs. For one reason or another, too many locksmiths have missed a significant piece of the market. There is no reason a Laundromat operator should not get full service from their local locksmith, rather than having the locksmith come to a stop at servicing the front door. The need is there, and with a little bit of help, you can take care of these customer's needs.

Consider that there are over 600,000 coin operated laundry machines produced each year. These machines have a service life from 10 to 15 years. At any given time, there are more than 10 million machines in service, each with at least two locks! It may not be automotive, but this is still not an insignificant number. Why should the laundry equipment dealers get all of the repeat business? You may get a call from an apartment owner with only two machines, a Laundromat with 60 machines, or a route operator with thousands of machines in service.

Security is a real concern for these businesses. If you figure eight "turns" a day, at a set price of \$1.25 per load, then a machine will collect \$70 a week. If there are 20 machines in the shop, there is as much as \$1,500 at risk in the store at a time. Add that much or more if the store has a change making machine. If I can do the math, so can your local "Silent Partner" - the criminal. There are

actually "routes" sold by criminal elements, complete with rings of keys, times of collection, and how much can safely be skimmed without alerting the owner.

There are other security concerns that can best be addressed by a qualified locksmith. Nearly all equipment leaves the factory without the coin box. The local distributor

With a little basic information on the equipment, and the skills the locksmith possesses, an additional little niche can be carved in the local market. A local locksmith can offer his services to the individual store front operator, or the route operators serving apartment complexes, emphasizing the added security he can offer the user. Monarch offers a

simple pamphlet, complete with an area for your store stamp or decal. These can be used to illustrate some security concerns that may not be obvious to the new operator, or even to some who are more experienced.

**T**he brands in general use are familiar to most locksmiths: Ace, Duo, Illinois, Abloy, Medeco, and many of the import "knock off" locks. However, the locks used in most laundry equipment differ slightly from the usual Double "D" 3/4" barrel. The stem on the end is a 9/32-28 threaded stud. This is the most common lock format for commercial washers and dryers, and some amusement

and vending machines. But what is hung onto the stud can lead to some real headaches.

Most top load equipment, i.e.; machines that differ from a domestic machine only in the addition of a meter housing, will use a standard coin box. These are available with three different tray lengths, 4-1/2", 6-1/4", and 8" (see Photograph 1).

A notable exception is the Maytag line, which uses a 1/4 turn extension



**1. A short chrome box, common in many machines.**

orders and stocks these items from whatever source they choose. To make their inventory simple, and take advantage of volume buying, it is a general practice to order several cases of coin boxes, all keyed alike, with one key each. So one Laundromat may have 20 new machines on one side of town, while one on the other side of town may have 30 more coin boxes, and each could open the other's coin boxes! This is not an ideal, secure arrangement.

**Continued on page 90**



**Continued from page 88**

with roll pin, for use in a box of their own fabrication (see Photograph 2). There are also a few models that use

Greenwald Hide-A-Key type box, must use the tubular camlock with the extended shank key. It cannot be easily converted to Duo or Medeco.

hole saw to core out a lock on these boxes unless you know you can replace the box. When in doubt, attack the lock directly. It is nearly impossible to locate a coin box for some older machines, for example, the round box used in some older Whirlpool equipment. And some current manufacturer's production boxes have ridiculous replacement costs (see Photograph 4).

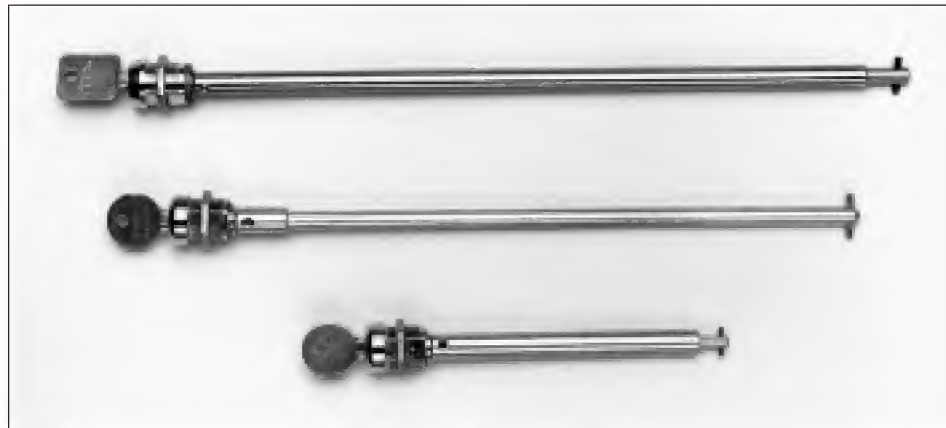
Some models have locks that thread into the back of the vault. Others use an extension with a roll pin at the end, and a quarter turn lock. The length of this extension can vary from model to model. There are some machines which use extensions that could just as easily use a standard coin box. When rekeying machines with

extensions, the locks alone may be easily switched. If the extension is threaded onto the lock stem, and locked into place with set screws, this is not a problem. If the extension is crimped on, then the entire lock and extension must be replaced.

**T**he level of concern that laundry owners display range from foolishly careless to positively paranoid. Some have unattended shops where 80 machines are keyed alike, with the cheapest lock available. Others go to opposite extremes, keying each one with a Medeco lock, each machine keyed differently, and deliveries of keys go to a different location

each time. These are extremes, and the best path is somewhere in the middle. Usual patterns involve each row keyed alike, or one side of store keyed alike. This minimizes the risks. It is important for operators to know where their keys are. Too often they are just hanging on a nail in the back room.

A smart operator, taking over an existing operation, will immediately arrange to rekey. (Hint: Keep an eye



**2. Three examples of quarter turn lock and extensions used on some larger equipment.**

the larger Guardian style box. This is true of some Whirlpool, and all Kenmore machines (see Photograph 3).

Coin boxes for large front load machines, both washers and dryers, can vary widely. They also vary according to the year the machine was made. For instance, Huebsch dryers made before January 1, 1996 will use a threaded extension, but machines after that date will use the standard coin box.

**I**f machines that use standard coin boxes are to be rekeyed, it is generally more economical to replace the entire box, rather than tear one down, and rebuild it with a new lock. There are two other manufacturers of these boxes beside Monarch. Some equipment manufacturers have made their own boxes, so differences in the various designs can create some problems.

Some boxes work right hand turn, some are left hand turn, still others use a 360° threaded extension through the box. Stack tolerances frequently require special shim spacers, especially when going from one make of lock to another. Some boxes simply cannot be made to accept a lock other than one like the original.

Some boxes require locks of a specific make, and cannot be switched to a different lock. For instance, a



**3. Monarch's Guardian box for use in Kenmore and Whirlpool machines.**

ESD boxes with Abloy keys can only be rekeyed with an Abloy style lock. If you are dealing with a mish-mash of equipment acquired from various source over the years, it will probably be well worth the slight additional cost to replace the coin boxes completely.

Standard coin box are relatively inexpensive to replace, but boxes for those manufacturers who march to the beat of a different drummer, offer a different challenge. The strongest warning I can offer is DO NOT use a





**4. Coin boxes come in a variety of designs and sizes. The black powder coated finish(box on bottom) is popular because they are easy to keep clean and do not yellow as chrome does. Other boxes are powder coated to coordinate with the machines decor.**

**The box on the top is the extra long box for Dexter Thoroughbred Washers.**

out for property transfers involving Laundromats, and offer your services. This point is often overlooked by the new owner until it is too late.) Operators building new laundry installations also need to be aware of where the keys have been, and who has had access along the way.

Like many small independent businesses, Laundromat owner's tend to be cheap. It's understandable. The margin for many shops is small. But the difference between a cheap lock and a good lock is a matter of a couple dollars. The first time the cheap lock is beat, the operator can lose much more than he would have spent on the better lock. It's a hard sell, but it is best to emphasize the good lock.

This is only a quick once-over of the factors involved. It is certain you will encounter other unexpected problems in the field. Monarch's catalogue contains a section showing the more common extensions. It also

details how to define the extension if the make and model are uncertain. There are a number of machines in the field whose service life has exceeded the existence of the manufacturer, or which are obsolete. Monarch can and does make "one of's" for people who have some brand of equipment that is no longer produced. Monarch also has the service door locks for most commercial laundry equipment.

Monarch is a family owned company that was started in 1903, and has been serving the coin operated laundry industry since its

birth in the late 1930's. It manufactures the coin boxes, and coin mechanisms for laundry equipment. They are at your service to answer whatever questions you may have regarding service to your Laundromat customers. If your need is not a part of Monarch's line, they are always willing to refer you to the correct source. Their philosophy is "if we work together, we all prosper together." If you wish to pursue this part of the market, give Monarch a call at (606) 261-4421. They will be glad to send you information on their products. **IRL**

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# The LIGHTER Side

"The Challenge"



by  
Sara  
Probasco

**W**hen Don and I chose to leave the city and move into a rural community, fifteen years ago, we were confronted by a number of attitudes regarding security that were foreign to us.

Some of our newly acquired neighbors had never owned a key to their front doors. If they had one, they used it only when they planned to be out of town for a long period of time. Some of the older folks never dreamed of locking their houses, even when they were away.

"Why, that would be downright inhospitable," they said. "What if some weary traveler were to come by looking for water, or for something to eat, or a place to rest?"

Many went even farther with their hospitality, leaving bread and cheese, a bowl of fruit, or a pot of beans where they could be easily found, in case someone happened by while they were away.

If this sounds strange to you, let me explain. We're talking about the South Plains region of west Texas,

here — primarily farming and ranching country. Dwellings in that part of the world are widely scattered, often two miles or more apart. The nearest service station, convenience store, or public telephone might be twenty miles away.

Little more than one hundred years ago, the entire area, still unsettled at the time, was considered "unfit for human habitation," according to a report submitted by surveyors to the state capitol of Texas. (Come to think of it, they may have been right. Some areas have still never been "broken out." There is little vegetation besides scrub cedar and gnarled, wind-twisted mesquite, and the only signs of life, as far as the eye can see, is an occasional coyote or rattlesnake.)

Drastic weather changes can, and do, occur without warning there. In the Fall of the year, "blue northerns" may sweep across the plains, dropping the temperature thirty or forty degrees in a matter of minutes.

I remember well leaving home in shirt-sleeves one sunny October

morning and driving south thirty miles into town for groceries. Before I started back, a light snow was falling, and by the time I approached home again, a raging blizzard had reduced visibility to less than a car's length and temperatures to the low teens.

In winter, the saying is, "There's nothing between here and the North Pole except a barbed wire fence, and it's down, about half the time."

In the spring, it's dust storms. Huge, brown, billowing clouds of sand and top-soil roll across the plains, filling the sky and sometimes blocking out the noon-day sun as if it were night-time. The first time I encountered such a storm, I felt as if a great down comforter had been pulled over our car, blocking out all visibility.

And the wind! Always the wind! Plummeting chill-factor temperatures far below zero in winter and sand-blasting the countryside in spring, it has been known to gust at eighty miles per hour on a clear day. Believe me, that's a lot of air movement!

A foot-traveler or a stranded motorist could find himself in dire straights, were it not for the strong sense of "neighboring" that these farm families possess.

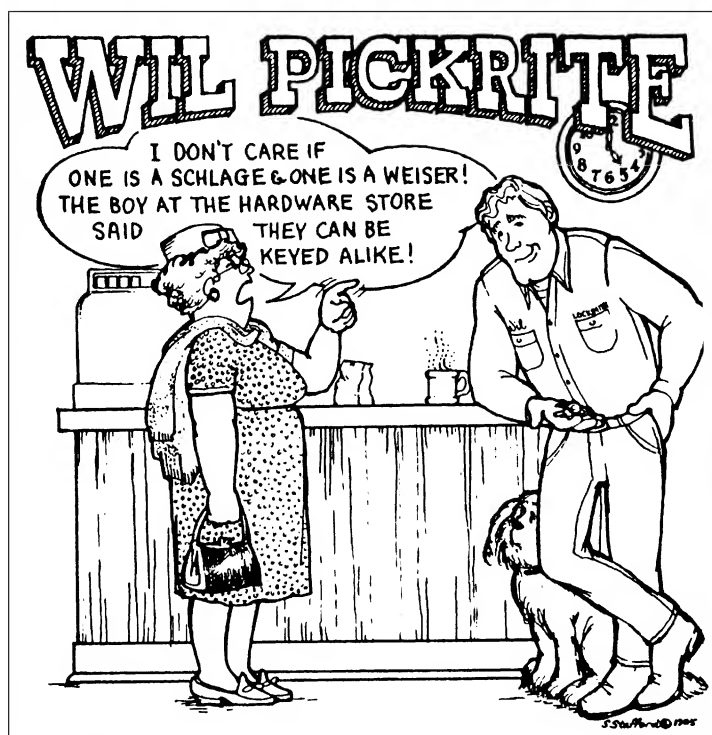
Many of those who eventually moved into town brought their neighborliness with them. Strange as it may seem, there was little abuse of their "open door policies," for many years, but all that is changing now.

A few months ago, a senior citizen was tied, beaten, and left for dead over the theft of one hundred dollars. Last year, the night clerk at a convenience store was shot in the head by a drug-crazed teenager. The spoils? About seventy-five dollars.

A service station owner down the road had been talking about buying a safe for months. Last weekend, he was "hit" and lost several hundred dollars in cash. We sold him a hopper safe on Monday morning.

Wait. There's more.

A school was broken into. VCRs and TV monitors were stolen. The theft was reported and new equipment purchased. The school was broken into again. The second time, the burglars gained entry through the same locked door, went into the same rooms, and took the new equipment. Again, new equipment was purchased and installed, but no additional security precautions have been taken.





**Continued from page 92**

Guess what's going to happen?

**T**ime and again, I hear stories of loss and tragedies that could have been avoided: Key rings left dangling in business doors when the owner is trying to wind up his day that disappear, necessitating a hasty re-keying job.

A store owner tired of being repeatedly burglarized and vandalized lays in wait with a shotgun, one night, and winds up being jailed for manslaughter.

A commuter to the city who's had to replace stolen car batteries three times, so far.

A man who comes home to find his door locked, which he had left open, and a pair of transient thieves loading up a couple of his pillowcases with loot. They were so stoned, they did not even resist, when the sheriff took them in.

One woman was not so fortunate. After her husband and the children left for the day, Carlene showered and dressed for an appointment. In her stocking-feet, she scooted down the hall, planning to cut through the dining room to get the purse which she had left in the entry closet the night before.

She rounded the corner into the dining room and surprised a burglar, who was helping himself to the family silver.

Feeling trapped, the thief attacked her with an antique carving knife. When the police questioned Carlene at the hospital, she admitted that she had never formed the habit of locking doors when she was at home during the day.

All that has changed, now.

So has Carlene's face.

Incidents such as these are not unique to any one part of the country. Such crimes have people everywhere angered, frightened, and confused.

In recent years, the trend in locksmithing is to label ourselves, "Security Consultants." Well, let's act like it! If we really are Security Consultants, we can help them. The point is, we need to do it before tragedy strikes, rather than after, by launching a campaign of "preventive maintenance" in our communities and teaching our friends and neighbors better methods of personal, home, and business security.

As this new year begins, I offer you a challenge. Look over your list of New Year's resolutions. Ahead of the one about losing weight, or stopping smoking, or painting the back porch, add a resolution to do something for your community — something to help lick these horrendous problems of theft, burglary, and assault that might be prevented by better security practices. Now, get busy and make it happen.

You don't have to do anything earth-shaking. You might simply offer free home-security evaluations, with no strings attached. How about giving

talks on general security measures to civic clubs, the Boy Scouts, Neighborhood Watch groups, or the senior citizens in your community? Use your imagination. You'll come up with something.

In addition to helping curb crime, I'd be willing to bet, you'll see an increase in business as a result of the good will you create.

We did.

Here's to a happy, prosperous, and secure New Year for us all! **TNL**

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# TECHNITIPS

## '98 Year-End Prizes!



### Grand Prize

HPC's 1200PCH  
Punch Machine



### 1st Prize

Silca Bravo Duplicator



### 2nd Prize

S&G 6120  
Electronic Safe Lock



### 3rd Prize

Curtis 2100 Duplicator



### 4th Prize

\$500 in All Lock Products



### 5th Prize

\$500 in ASP  
Auto Locks



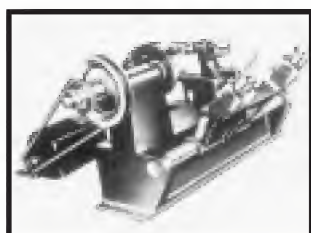
### 6th Prize

SDC Magnetic Lock,  
Keypad and Exit Switch



### 7th Prize

Arrow Exit Device  
and Mounting Kit



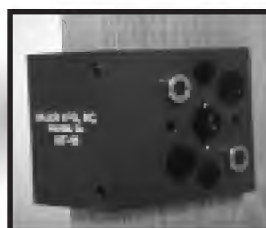
### 8th Prize

Foley-Belsaw 200  
Key Machine



### 9th Prize

Securitron DK-26  
Touchpad and Cpu  
Board for Magnetic Lock



### 10th Prize

Major  
Manufacturing's  
HIT-111 Drill Guide



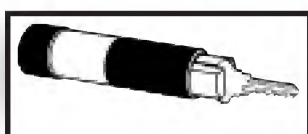
### 11th Prize

Dewalt Cordless Drill



### 12th Prize

Sieveking Products  
Squeeze Play



### 13th Prize

Framon Impressioning  
Handle

**The 15  
Minute  
Safe  
Opening  
Technique**

### 14th Prize

Book — 15 Minute Safe  
Opening Technique by  
Jake Jakubowski



### 15th Prize

Slide Lock's  
Master "Z" Tool Set



## These Prizes Awarded Each Month!

- All Lock Ford or GM Kwikit
- Aero Lock Tryout Key Set
- Strattec Racing Jacket
  - HPC Pistol Pick™
  - Sargent And Greenleaf
- 4400 Series Safe Deposit Box Lock
- A-1 Security Products
- Silca Key Blanks (100 Blanks)
  - Pro Lock Pk 15
- Professional Lock Pick Set
- Tech Train Training Video
  - Sieveking Products
- Gm E-Z Wheel Puller
- Major Manufacturing Products
- Slide Lock's "Z" Tool Opening Set
- The Sieveking Auto Key Guide
- Jet Key Blanks (100 Blanks)
  - High Tech Tools
- LaGard Combo Guard



### 16th Prize

Falle Pick Set From Mark Bates Associates



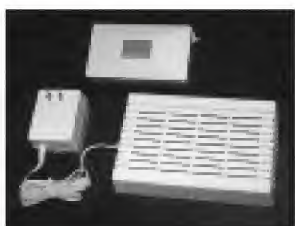
### 17th Prize

Baxter J V-1 and J V-5 Code Books



### 18th Prize

ABUS Padlock's Marine Padlock Display



### 19th Prize

Rodan's AV 100 Heavy Duty Door Annunciator



### 20th Prize

ESP Products Sampler



### 21st Prize

Detex ECL-8010W Wetlock®



### 22nd Prize

LaGard "Smart Guard"®



### 23rd Prize

M.A.G. Engineering Sampler



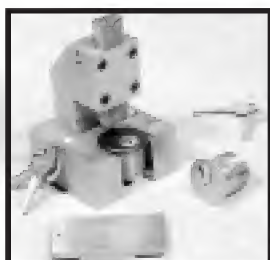
### 24th Prize

\$500 in Strattec Auto Products



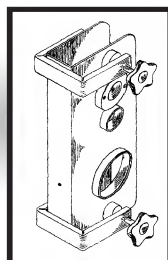
### 25th Prize

High Tech Tools 2500 Pro Set



### 26th Prize

Accu-Mark™ Key Stamping Machine



### 27th Prize

A-1 J-50 Installation Jig



### 28th Prize

Mas Hamilton's Auditcon 2100 & Certification Class

## Send in your tips, and win!

### How To Enter

Simply send in your tip about how to do any aspect of locksmithing. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Write your tip down and send it to:

Jake Jakubowski, Technitips Editor,  
**The National Locksmith**, 1533  
Burgundy Parkway, Streamwood, IL  
60107-1861 or send your tips via E-mail  
to: Natlock@aol.com

### Every Tip Published Wins

If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

By entering, your chances are greater than ever that you will win one of the prizes listed. This is the biggest Technitips prize year ever. Wouldn't you like to be a prize-winner in 1998? If so, enter today!

*Tips  
start  
on next  
page!*





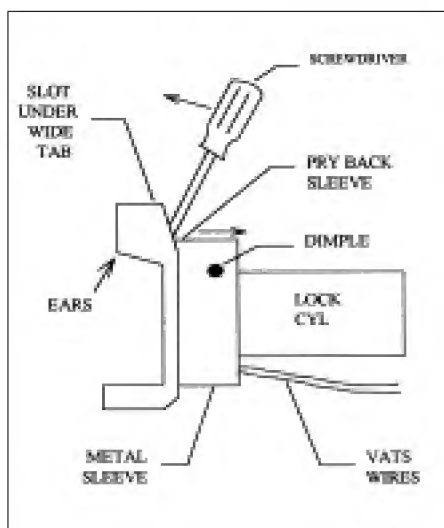
**ALL LOCK KWIKIT  
WINNER:  
Easy VATS Ignition  
Repairs**

Two of the most common problems with GM ignition locks is the spring retainer popping loose or the side bar retainers coming loose due to improper staking. In both cases the lock always seems to jam in either the "LOCKED" or the "RUN" position. Until VATS, all you had to do was replace the lock using a quick and easy procedure.

With VATS, however, you need to not only remove the ignition, but you also carefully pull wires up through the steering column. Then you can hopefully feed the new wires back down thorough the column. It is not an easy or enjoyable procedure.

I have a procedure for repairing these malfunctions on VATS locks that is easy, quick and allows you to effect the repair without having to replace the old ignition.

First, remove the lock from the steering column as you would any other GM ignition. Next, with the lock pulled out just enough to clear the column housing (be careful not to stretch or break any of the delicate VATS wiring) use a screwdriver to push back the metal sleeve that is just behind the black plastic ears of the ignition (see Illustration 1). This sleeve holds the ears on the lock housing.



**Illustration 1.**

To help facilitate removal of the sleeve, look underneath the wide finger tab and you will see a slot. Wedge a small bladed screwdriver in this slot and gently push the sleeve

## A Few Words From Jake...

How about that great year-end prize list for 1998?

You will see that the year-end prize list has gone from twenty-one prizes to twenty-eight! LaGard has come aboard as a monthly and year end contributor. They are giving a ComboGuard away each month and a SmartGuard at the end of the year.

High Tech Tools, and Strattec are also giving away both a year-end and a monthly prize for 1998. It's manufacturers like these along all the other monthly and yearly prize contributors who help make this column as exciting as it is.

If you want to get your hands on some of the goodies that I've listed for this year, all you have to do is sit down and write about an idea that helps to make your job a little easier, and then send it to me. If I print your trick, tip or idea, you'll receive lots of good stuff from me for the monthly prize and you'll automatically qualify for the biggest year-end prize drawing ever. There are tens of thousands of dollars in books, merchandise, key machines, tools, products, Locksmith Bucks and grab bag prizes to be given out this year.

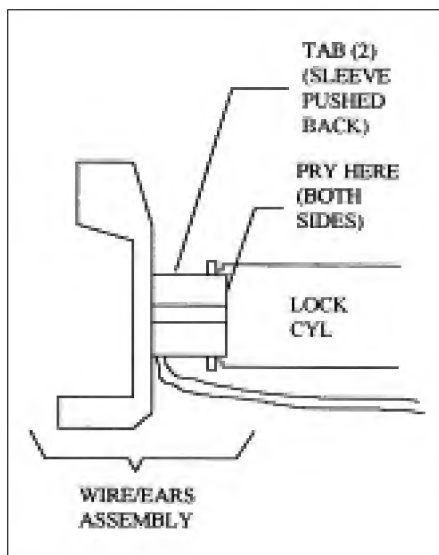
So, what are y'all waiting' for! Grab your pen, pencil or keyboard and fax, mail or E-Mail me your tip today. Y'all heah me, now?



**by Jake  
Jakubowski**

back. Now you can work the screwdriver completely around the lock until the sleeve slides out onto the lock housing and onto the wiring. You can now slide the sleeve all the way back to the column and leave it there until needed.

The ears of the ignition are held to the housing by two tabs (see Illustration 2). Gently pry on both of the tabs and the Wire/Ear assembly will easily come off of the housing. Once this assembly is removed, you will see a clear plastic piece that holds the metal VATS contacts in place on the collar of the ignition (this may also be on the face of the lock cylinder). Remove the plastic piece from the



**Illustration 2.**

lock face and snap it back on the collar to hold the contacts in place while you service the ignition. Now just allow the collar to hang free.

After correcting the retainer problem snap the collar back on the housing (the clear plastic piece on the collar has two alignment tabs to guide it back onto the face of the lock). Slide the metal sleeve back into place (note the two dimples on the sleeve that align it on the collar), and reassemble the ignition and column.

This allows the customer to keep the same key, the wiring under the knee bolster is not disturbed and you can use this procedure to determine the cuts of the ignition key if there is not code available. Also, even if the lock is damaged beyond repair, you can remove the collar from a new lock and install the Wire/Ear assembly from the old lock on the new ignition. Just cut new VATS keys to fit the new lock since you already have the VATS value from the old key.

I have found this procedure to work well on all of the VATS ignitions that I have worked on so far.

Charles Chapple  
Georgia



**AERO LOCK TRY-OUT  
KEY SET WINNER:  
Flashlight to  
Withstand the  
Elements**

I have come up with the ultimate opening light. I became tired of spending a lot of money replacing

**Continued on page 100**

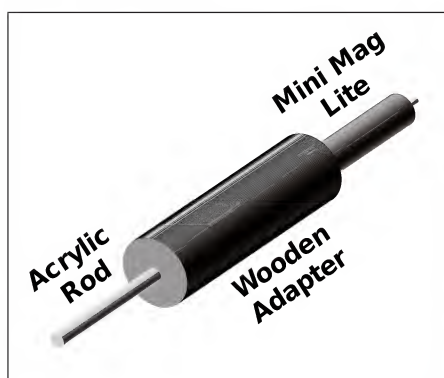


**Continued from page 98**

bulbs that have blown up upon becoming wet, bulbs that break when inserted in a door panel, or having the bulb burn out when I needed it most.

To make my ultimate opening light, you will need a 3/16 inch acrylic rod (which can be bought at any plastic supply store and many hobby shops), a 1-1/2" round by 2" long piece of wood and a Mini Mag flashlight.

The round wood stock is used to make the adapter. Bore a 1" hole in one end 3/4" of an inch deep, and a 3/16" hole all the way through from the other end so that the acrylic rod will butt up against the flashlight lens (see Illustration 3).



**Illustration 3.**

Cut the acrylic rod to any length that you feel comfortable with. I cut one piece 18" long for a straight light and the other about 20" long with a two inch 90° bend on one end. You can bend the rod by heating with a heat gun.

After cutting, file all ends with a fine file. Then use a fine emery cloth and polish with something like SIMECHROME and a piece of paper to remove all scratches from the acrylic rod.

Now insert the proper rod in the adapter and turn on the Mini Mag. You can adjust the brightness of the light by adjusting the Mini Mag. Best of all, it won't break or be effected by the weather like so many lights can be.

Jay M ischo  
Utah

[Editor's Note: Jay, you can also use a propane torch to melt the ends of the Acrylic rod to a smooth scratch free surface. Simply pass the flame of the torch rapidly across the butt end of the rod several times until the rod clears.]



STRATTEC RACING  
JACKET WINNER:  
**BMW Boot Opening**

Attempting to open  
a 3 series BMW (up to

the 1994 registrations) by going down in the door has been a fruitless pursuit because of the deadlocking system. Also, because of various shielding methods used by the manufacturer to protect the vulnerable linkages, it is very difficult if not impossible.

The method that I have found to be most successful is to remove the license plate and drill a hole between the linkage connecting the lock to the latch mechanism. Once you have drilled the hole you can then apply pressure to the trunk locking rod through the hole to release the latch. Once you have opened the boot (trunk), you can set about making a key. The boot has 8 of the 12 wafers necessary to generate an operating key for the vehicle. After you have obtained a working key for the boot, it is a fairly simple matter of impressing the remaining four cuts from the door lock.

I believe this method will also work on late BMW models, but bear in mind that many newer BMW models have transponder technology, so a key generated in this manner will open the boot, the door and turn the ignition, but not start the vehicle.

# NATIONAL

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This method should also work well on the 5 series and 7 series even though these models are more easily opened by going down the door with a proper tool.

Gary Watts  
England



HPC PISTOL PICK  
WINNER:  
**Titan Lever Lock  
Cylinder Removal**

Tom Taylor's Titan Plug Removal (July, 1997) works great on key-in-knob locks. Here's a way I have found to simplify the plug removal on a Titan key-in-lever set which Titan claims requires a TC Rekeying Tool.

First pick the lock to the left about 100° or until the plug will not turn any further. Now slip the end of a slim tension wrench, pick or other appropriate tool down through the center of the keyway until you feel the spring loaded tension on the tail piece. Push in on the tail piece and turn the plug further to the left at the same time. Now, the plug will rotate to the 180° position. In this position, you can use a hook pick to pull the plug right out of the lever.

Rekey the cylinder and test it for proper operation (without installing

the retainer clip). Now, remove the key and the plug from the cylinder, take out the key, slide the plug back into the cylinder at about the 9 o'clock position, and replace the retainer clip. Rotate the plug to the left until it is 180° from the key removal position. Another 90°.

Now slide the cylinder back into the handle, slip the end of the slim tension wrench, etc. down through the center of the keyway and push in on the tail piece and turn the plug to the right at the same time. The plug will rotate to the key removal position and lock up. The job is complete.

Ray Haithwaite  
Connecticut



SARGENT AND  
GREENLEAF WINNER:  
**Safe Lock  
Troubleshooting**

When the customer tells you that they have had problems opening their safe, but can usually get it after awhile, you might question the accuracy of the numbers that they are using. If the numbers are off, here's a simple solution to the problem.

First: Turn the dial five or six times to the right. Then start

turning to the left and make sure that all the wheels are picking up and not sticking. Then, if you want, you can try it in the other direction.

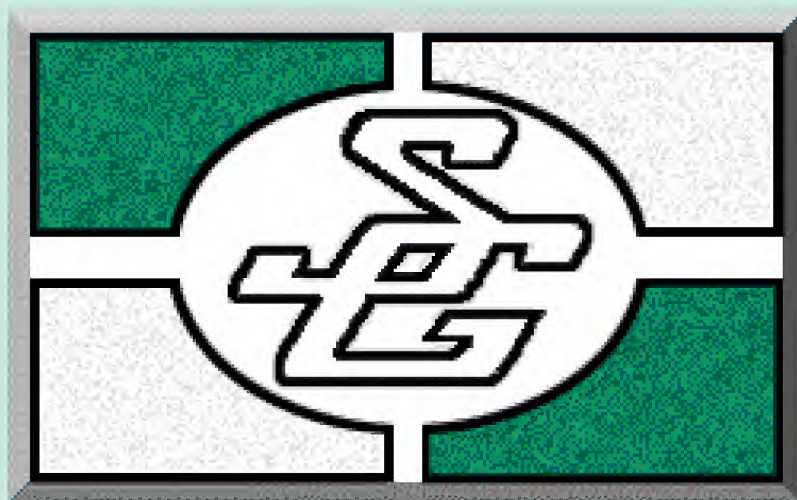
Second: Wiggle the door and door handle and make sure the door is not bound or there is back pressure against the lock bolt.

Third: Dial the customer's combination and stop at "O" rather than continue to the drop-in. Do not try to retract the bolt yet.

Fourth: Use a large rubber mallet and start rapidly tapping just above the dial on the door, and at the same time slowly begin turning the dial towards the drop-in. If you reach the drop-in without feeling the fence drop, try gently oscillating the dial back and forth about ten numbers either way. Usually you will feel the fence drop and can retract the bolt.

Often, I have opened these troublesome safes in under five minutes. Once open, it is a simple matter of taking the back cover off the safe door and removing the lock for inspection, service and/or repair.

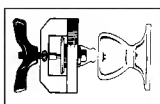
Brad McKenzie  
Ohio



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**A-1 SECURITY  
PRODUCTS WINNER:  
Nissan Pick-up  
Opening**

The 1997 Nissan Pick-ups have a linkage that is more like the Nissan sedans. The rods are protected by the metal of the inner door skin and there is a hole in the metal just forward of the bell crank. Measure forward from the vertical part of the window track about eight inches. Do not start from the curved portion of the window frame. Wedge the window and lower the long end of your "Z" tool or a double "L" tool about 6-1/2" into the door cavity.

You should be able to find the hole by feel and locate the horizontal rod. Move the tool as far to the rear as possible, where you should be behind a bend in the control rod. Move the tool to the rear of the truck and simply push the rod forward.

I have found that the door panels on these vehicles remove easily. The lock clip is an improved design and the slip still has prongs that have to be depressed to remove the clip.

This lock is of the 10-cut series first introduced on the Nissan Pathfinder. The door contains cuts 3-10. However, cut #3 is difficult, if not impossible, to see. It may need to be obtained by progression, or impression, after the other cuts have been determined and made. Cuts one and two can be obtained by progression in the ignition.

Raiford Ball  
Tennessee



**SILCA KEY BLANKS  
(100) WINNER:  
Key Tracking**

Here's a tip to help increase key security in larger complexes such as hotels, condo's and factories. This idea may also eliminate the problem of passing out the last key in the key storage box which is often needed to make more keys.

Take the proper key (let's call it a Schlage C343657) and duplicate it on a Schlage "E" key blank making the back up key an E343657. This key can then be tagged with the location it is supposed to fit and when a new key is needed for that location, one can simply be duplicated on a proper blank (in this case, a "C").

By using a different color or shaped key tags for these "back-up" keys, the

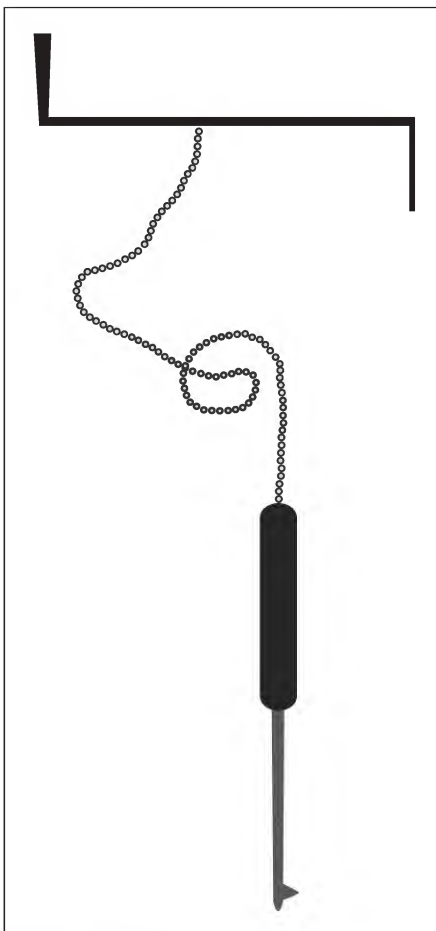
customer will know exactly where they stand and it will prevent them from passing out the last key which won't even enter the lock if they did mistakenly give it to someone.

Roger Jordan  
Florida



**PRO LOCK PK 15  
PROFESSIONAL PICK  
SET WINNER:  
Pick Set Retainer**

I keep track of my favorite pick and tension wrench by soldering them to approximately 1-1/2" of ball chain (see Illustration 4). This makes them easy to spot in a



**Illustration 4.**

cluttered tool box and should I drop one over a wooden deck or fire escape while trying to pick a lock, the tools soldered to the chain will not fall all the way through the opening.

Steve Wade  
Illinois



**TECH TRAIN TRAINING  
VIDEO WINNER:  
VATS Substitute**

I received a call to make a key for an '89 Camaro. When I arrived, I found a VATS key broken off in the door. I removed the broken half from the door,

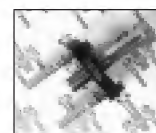
but did not have the proper VATS blank to generate a key. Since it was a Sunday afternoon, there was no place for me to obtain the proper blank. Here's how I solved the problem.

I cut a mechanical key on a non-VATS blank. Then I knocked the pellet out of the old blank and placed the bow of the broken key against the head of the mechanical key I had just cut. I clamped the two keys together with Vise-Grips and used an ice pick to mark the new blank through the hole in the old blank where I had removed the VATS pellet.

Next I drilled a small hole in the new blank and using a rat-tail file to begin shaping the new blank's hole to conform to the VATS blank. Once I had the hole to the dimensions that I wanted, I pressed the VATS chip into my custom made VATS key.

It worked fine and got my customer out of a problem.

Guy Howard  
Kentucky



**SIEVEKING PRODUCTS  
GM E-Z WHEEL  
PULLER WINNER:  
Jaguar Opening**

One of the car dealers that I service had a 1987-89 Jaguar XJS with a locked trunk and no key. Although I had never worked on one of these cars before, I told the customer I would be there as soon as I could.

On the way to his lot, I stopped at another dealer we service where I knew there was another Jag of the same year and model. There I took some measurements on where to drill the trunk if all else failed.

When I got to the Jaguar that I had to open the trunk on, I tried picking the lock. Surprisingly it picked very easily, but the trunk would not open. I tried impressing without any luck and decided to drill to open the trunk.

Measuring 20" from the right side (passenger) of the trunk lid and 2-5/8" down from the bottom of the trunk, I drilled a quarter inch hole through one layer of metal.

I used the lower right hand corner hole for the license plate screw to put my car opening light into and bent it to shine towards the hole I had drilled. Using a small screwdriver, I slid it into the hole and lifted up on the linkage and unlocked the trunk.

It took about five minutes to open the trunk and about twenty to effect the repairs to the lock and the hole that I drilled.

Bernny Freiberger  
Nevada



Continued from page 102

**Major**  
MANUFACTURING, INC.

MAJOR MANU-  
FACTURING  
PRODUCTS  
WINNER:

### Lumina Tailgate Opening

Lumina Vans made from 1990 until the present have wing type locks on the tailgate. I had one where the lock had froze and could not be turned with a key or released by the inside lock release. Since the screws that allow you to disassemble the tailgate to get to the lock can not be accessed unless the tailgate is down, how do you unlock the tailgate?

If you get inside the van and measure approximately 1-1/2" back on the top of the plastic trim (TDC) that is on the inside tailgate and drill a 5/16" hole in line with the lock and you can access the lock linkage. By inserting a suitable viewing tool, the lock release linkage is directly behind the lock mechanism. Hook the linkage and pull to the passenger side and the tailgate is open. The hole can be repaired by inserting a plastic door trim button or plug and painting as necessary.

Steve Phillips, CRL  
Illinois



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SLIDE LOCK'S "Z"  
TOOL OPENING SET  
WINNER:  
**Wafer Depressor**

I have come up with a way to make a functional wafer depressor for reading wafer locks from an old altered strike plate (see Illustration 5).

First I cut the back portion of the strike at "A" and with a torch heat at "B" and bend the tang to a 90° angle.

Depending on the width of the keyway you're dealing with, you will want to shape the depressor to fit. The angled part of the depressor/strike, should be bent away from the lip of the strike so that the depressor can be laid flat against the lock you are working on.

The opening on the strike becomes your viewing hole and the bent portion of the strike is the depressor. Works great and it's cheap!

David Craig  
Illinois



1995  
The Sieveking Auto Key Guide  
WINNER:  
**Lemon Pop  
Enhancement**

I was trying to open a Mercedes by pulling the lock button up with a plastic strap (a Lemon Pop-type tool) and the tool kept slipping off of the button. To make a better grasping surface, I folded the strap in half and cut off a small angled wedge. When the strap was opened, it gave me a "V" in the middle of the strap which would grab the button better than the unmodified strap.

Clarence White  
Tennessee

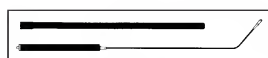


JET KEY BLANKS  
WINNER:  
**Showcase Lock  
Fasteners**

I have customers that use 3/4" diameter cam locks on their glass showcases. Since you can't field-cut a "D" hole in glass, I prevent these locks from being turned by a key or screwdriver by placing an "O" ring inside the glass with a washer between the "O" ring and the lock nut. This way, you can put a great deal of pressure on the lock nut without danger of breaking the glass.

The same holds true of wooden cabinet doors on which a 1-1/8" mortise cylinder, with an extended cam, is used to lock the door. For this I obtain 1-1/8" "O" rings, place one on the mortise cylinder, put the mortise cylinder through the round-drilled hole and secure the inside with the mortise nut.

Wynn Kessler  
California

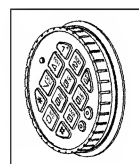


HIGH TECH  
TOOLS  
WINNER:

### Magnetic Work Mat

When working with small metal parts in low light conditions, it seemed that one or two would always manage to disappear. I discovered that placing an old magnetic sign face-down on my work bench as part of the work surface kept most of the small pieces from moving around.

Bob Sloan  
Canada



LAGARD COMBO  
GUARD WINNER:  
**Spline Index  
Opening**

A jewelry store had been burglarized and the bad guys knocked the dial off of the safe (a Major TL-15) and in the process had broken the spindle off about an inch inside the door. The dial was a LaGard spy proof dial which I knew was splined at 45. I figured that if I could determine where the spline was when the numbers of the combination reached the opening index and then mark those locations, I would have a way of dialing the safe open even though I had no dial attached to the spindle.

First I placed the dial back in the dial ring and turned it as though I was actually working a combination. Each time I reached my number, I made a mark where the spline would be in relation to that number. Then I repeated that for the second, third and drop-in numbers.

I removed the dial and grasped the spindle with a hemostat and began to "dial" the combination, using the spline key location marks. The first attempt failed, so I re-dialed the combination with more precision and the safe unlocked. Not the easiest way to open a safe, but it worked.

Larry Tipton, CRL  
Tennessee

TNL



# Reed Report

**Q.** What code machine will cut the Chubb and Tibbe keys?

**A.** For Chubb keys you can use a Silca, or get an adapter for the HPC 1200. The same holds true for the Tibbe keys, but you can also get an adapter for the Framon code machine.

**Q.** I have been having difficulty with Peugeot cars lately. Are they coded and if so where? Can they be impressed?

**A.** Codes may be located on the ignition cylinder, on the trunk lock, glove box locks or may be written in the car manual. Yes, you can impress the ignition and door locks, but be careful with the door cylinders because some are made of plastic. You won't have much room between cuts on the lock, so be very careful, and use the tip of your file while working on the ignition. The door cylinder is a wafer lock in most cases, and the ignition is pin tumbler.

**Q.** I am located in Colorado and it seems that every call I go on results in a 15 mile trip or longer. Most calls are lost keys. I would like to know what is the best car book on the market today?

**A.** I just love it when you guys get me in trouble. There are several good car books out there, but if you're making me pick just one it would have to be AutoSmart by Michael Hyde. As I said just a couple of months ago, if Mike's name is on a book, buy it. He is the writer of the decade. AutoSmart is published by The National Locksmith, but you can also buy from me direct.

**Q.** I have attended your "How To Be A Millionaire Locksmith" three times and have picked up something new every time. Will you continue this program in 1998?

**A.** I have cut down to eleven seminars for 1998, so I will only present this program in cities that I have never presented it in before, or if the sponsoring association requests it. I have updated the seminar so you will probably pick up even more. I will also continue to present my "keynote address" version at association banquets when it is requested. My first seminar this year which will include the millionaire thing will be in Hawaii on March 21st.



Yours For Better Security,

*Bill Reed*  
Bill Reed

## Scatter Shooting while remembering... Harold Hoffman



**Photograph 1.**

**Q.** The Ringling Museum (as in Ringling Brothers Circus) had me work on a door and lock, and I need some help in identification. The Museum was opened to the public in 1930 in Sarasota, Florida. It was built in the 1920's. Photographs 1 & 2, show the door that leads to an area that is going to be a tomb for John & Mable Ringling. Photograph 3, shows a Corbin full mortise lock with knob and spindle. It looks like an L7 to me, but any information would be appreciated. The Museum and I would really appreciate any information your readers might have regarding the knob and the door. The door itself was purchased used in Paris, France.



**Photograph 2.**



**Photograph 3.**

**A.** I really can't tell you a thing about the door or lock, but with all the learned locksmiths we have out there, I am sure someone will come to your rescue.

**TNL**

If you have a question for Bill Reed, would like to talk to him concerning anything in this column, or want to attend a Bill Reed seminar at one of the locations listed below, you may contact Bill directly on his toll free number at: (888) 801-2003.

Mar. 21	Honolulu, HI	Aug. 1	Kansas City, MO
Apr. 18	Denver, CO	Aug. 15	Memphis, TN
May 2	Phoenix, AZ	Sept. 26	San Antonio, TX
June 6	Seattle, WA	Oct. 17	Washington, DC
July 18	Columbia, SC	Nov. 7	Salt Lake City, UT





# No Holds Barred "Deadlatches"

by Joe & Dee Bucha

**T**his month we're going to talk about the swinging door, maximum security, paracentric lever-operated latches and deadlatches. Whew! That's pretty descriptive all by itself. A few reminders though, and forgive me if we sound repetitious. We do have new readers every month and we want everyone to understand the important differences between the commercial field as opposed to the prison field.

Maximum security is not the same as high security. In locksmithing high security is a short term for pick resistant, drill resistant, and in some cases, multi-shearline locks. Maximum security, in the prison industry means heavy, oversized and strong. In addition, locksmiths are used to calling up their local wholesaler and purchasing a lock off the shelf, with the correct finish, function and design.

This doesn't happen in the prison field. Each lock is available with all sorts of choices: one knob (and while you're at it, which side of the lock would you like the knob on?), two knobs or no knobs; 5-lever or 6-lever; keyed on one side or both sides; and in several instances: commercial keying, mogul keying or paracentric keying. Safety knobs or regular knobs? How long do you want the bolt projection? What kind of door you are working with will offer an additional set of variations in keeper (strike)

design and/or mounting plates. And forget handing. It will mess up your mind, because it's often the direct opposite of what you're used to. In a great many cases you will be handing the jamb, not the door.

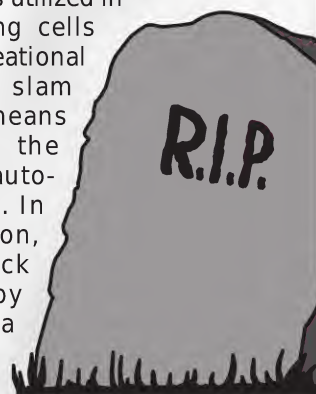
So, what's the point? Just know these differences exist. They're vitally important.

Here's the Folger Adam #60 and its equivalents (see Illustration 1). First, let's check out measurements (see Chart 1).

This little jewel weighs about 11 pounds and 3/4" throw is a standard for the bolt throw. When retracted the throw will extend approximately a half inch. Longer projections can be special ordered. Some of these locks

are UL-listed for use on three-hour fire doors and are rated as maximum security in the prison field.

The #60 is an ordinary latch function and is usually found on swinging doors utilized in corridors, holding cells and dining/recreational areas. They are slam locks, which means when you slam the door the lock automatically latches. In normal operation, you open the lock with a key by turning the key a half turn. If the key is turned 360



#60 Lock	Length	Height	Depth
Folger Adam #60	8-1/4"	4-1/2"	1-1/2"
Adtec #4060	8-1/4"	4-1/2"	1-1/2"
Brink #7060	8-1/4"	4-1/2"	1-1/2"
Southern Steel #1060	8-1/4"	4-1/2"	1-1/2"
Bolt Projection (when retracted):	1/2"		
Bolt Throw:	3/4"		

Chart 1



**1. The Folger Adam #60 latch, which will deadlatch with the full turn of the key and has slam lock capability.**



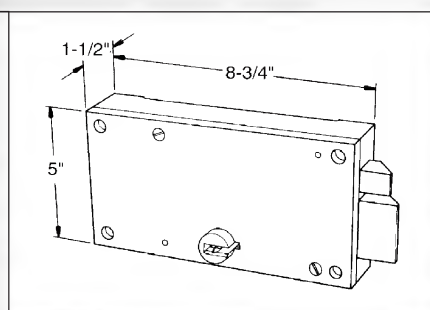
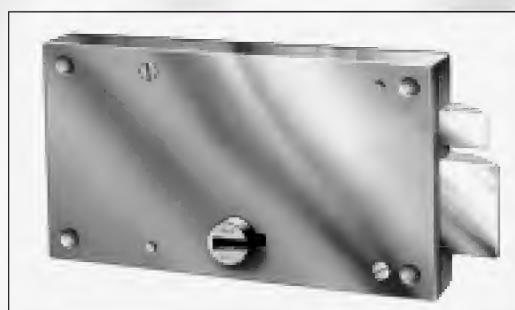
**2. The Folger Adam #60K.**  
While measurements are the same, the internal workings differ in design between the 60 and 60K allowing the 60K to accept knobs.



degrees in the opposite direction you will deadlatch the lock. Or you can unlock the lock, remove the key, and when you slam the door, the lock will automatically lock. Remember, however, deadlocking can only be accomplished with the key.

The Folger Adam #60K is a slightly different version of the above lock and the "K" denotes the need for knobs (see Illustration 2). It's important to understand that while it may appear that we are just asking the factory to "add" a feature, its not really quite so simple. The locks are actually designed with slight differences inside, allowing the lock to accept knobs. Keep this in mind when your end user requires knobs attached to a lock.

The "big brother" of the #60 is the slightly larger #70 or Adtec equivalent #4070 which automatically deadlocks when the door is closed (see Illustration 3). Its measurements are slightly larger to accommodate the deadlatching mechanism, a second, smaller latch above the snap (slam) latching mechanism (see Chart 2).



**3. The #4070 by Adtec clearly shows the deadlatching mechanism located above the latching mechanism.**

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	Length	Height	Depth
Folger Adam #70	8-3/4"	5"	1-1/2"
Adtec #4070	8-3/4"	5"	1-1/2"
Brink #7070	8-3/4"	5"	1-1/2"
Southern Steel #1070	8-3/4"	5"	1-1/2"
Deadlock actuator is: 3/4" x 3/4"			
Latchbolt throw is: 3/4"			
Deadlatch throw is: 1/2"			

**Chart 2**

Adtec, Folger Adam and Southern Steel have a 6-lever version of this lock as a special order. In the Brink version of this lock, a 6-lever version is the standard, and a 5-lever version can be special ordered.

The additional bulk of the deadlatch and the larger case size, adds another pound to the weight, bringing it to a twelve pound heft. It gives you some idea of how massive these locks really are.

When ordering either the #60 or #70 lock, or its equivalents, you need to keep the following options at the front of your list of questions to ask the end user: handing, bolt projection, finish, type of mounting, type of keeper, safety or standard knobs (if any), and keying instructions. Just as you can't assume a customer knows all the possible designs, features and functions of a commercial lock, you can't expect the end user to be aware of these choices in the detention field.

Both locks have hardened steel pin inserts to strengthen the latch and to prevent sawing.

Very little can go wrong with these locks, excluding inmate abuse and normal wear. If properly maintained they can literally outlast a prisoner with a life sentence.

Now, let's check in with Jailhouse Joe and get his tip for the month:

It's been an interesting couple of months! Let me address a problem that seems to be popping up repeatedly: that of schematics for lock installation, and in the case of electromechanical locks, wiring diagrams. The factories don't mind supplying these items, but with the following caveat: It's not routine.

There is a very large number of variations in design and function with prison locks. Someone has to tear himself away from his regular job,

locate the exact version you're looking for, find a FAX machine and the proper FAX number and get it to you or mail it to you, as the case may be. Even more importantly: the factories are not going to provide you with schematics on any lock, installation, wiring or otherwise, unless and until you place an order. Why? Security, as well as ordinary common sense.

This paperwork needs to be in the hands of only those professionals qualified (and committed) to its use. Just as you would not supply your neighbor with the wiring diagram for your (or your customer's) burglar alarm system, the factories are not

going to have templates and diagrams scattered around the country for just anyone to collect "for the fun of it." Templates and schematics are costly and tightly controlled. Please keep in mind that detention lock factories have an obligation to ensure these papers don't drift into the hands of a prisoner with escape on his mind. They take that obligation very seriously!

On the same subject: if you're installing a great number of these locks, use the installation specs to create a lightweight metal template. It will be more durable and will last through the job. In addition, store this sensitive material in a safe place. You, too, have an obligation to safeguard such information from the public domain. **TNL**



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# Safe Restoration

## Part 3

by Lynn A. Burman, CPL, CJ S

**W**elcome back, by this time you are probably saying that I am nuts (or at least a quarter bubble off of plumb) to go through all this work on a cast iron safe. Although similar to cars, boats, or anything else that has been in the family for a long time, people will pay just about anything to get it restored.

Up to this point we have ground as much of the old finish off of the body as we can with a power sander (see Photograph 1).

I have removed the door from the body and will treat them as two separate pieces from here on until finished. This is done because there is almost always little or no detailing on the body. Now we need to scrape, or hand sand all of the areas that we couldn't get into with the sander. This doesn't mean that you

have to remove all the paint, but what you leave must be clean and perfectly smooth. I just find it easier that way.

The next step is to fill all the dents and scratches. If the dent is deeper than 1/8" then it has to be sanded down to bare metal and must be filled with auto body filler (BONDO). If all you have is minor scratches you can use glazing putty. Follow the manufacturers direction for mixing the filler.

Dents that are 1/8" or less can be filled in one pass, deeper dents will require multiple passes. This is because the material shrinks as it hardens. On the first pass fill the dent and cover an area approximately 1/2" larger than the dent on all sides and allow to dry. To apply the filler you use a spreader and apply it much like frosting a cake. You want the surface to be as smooth as possible, but you don't want to overwork the filler. The more you work the filler the rougher it gets, and more air gets trapped inside which in turn creates pits and pockets that will have to be filled again as shown in Photograph 2.

Ideally you only want to spread it 2 to 3 times then leave it alone. Once

hard (20 to 45 min.) sand it smooth with 36 grit paper and a sanding block (see Photograph 3). Don't over sand as you will just have to refill again. Use a straight edge to check when it is smooth. Once it is smooth, sand it in the other direction with 80 grit until you can't feel the patch when you run your hand across it in either direction. If you can't feel the edges you won't see them under the paint. Now give it one last check with the straight edge to make sure you haven't left any valleys or dips (see Photograph 4). Once smooth and straight give it the first coat of primer (see Photograph 5).



**1. Up to this point we have ground as much of the old finish off of the body as we can.**



**2. The more you work the filler the rougher it gets, and more air gets trapped inside which in turn creates pits and pockets.**



**3. Sand the filler smooth with 36 grit paper and a sanding block.**



**4. Check with the straight edge to make sure you haven't left any valleys or dips**





**5. Once smooth and straight give it the first coat of primer.**

Before you apply the primer you have to decide how you are going to paint the safe. If you have a compressor you will be able to use a spray gun, if not you are limited to a spray can. Either way is acceptable just make sure you stay with the brand and type of paint that you started with. If you start with a lacquer stay with it.

As soon as the primer flashes (changes colors) you can apply the



**6. Check once again for imperfection and fill any that you find with glazing putty and then sand with 240 grit tac.**

second coat. After applying the full wet coat allow it to flash (10-20 min.) and give it another full wet coat and allow it to dry overnight.

Inspect the primer coat for any imperfections that now show up because they can now be filled with a glazing putty. Use a rubber squeegee to apply and allow to dry. When properly applied this takes an hour or less.

Now you want to light sand the entire safe using 180 grit paper. If doing this outside or where making a big mess won't matter, then you can wet sand and get a smoother surface. After sanding use the tack rag (be sure to use a clean side) to tack the safe and then prime again with two full wet coats. Let dry overnight and check once again for imperfection and fill any that you find with glazing putty and then sand with 240 grit tack and prime again (see Photograph 6). Now you are ready to apply the first coat of color if the surface is perfect. Remember that any imperfection that shows now will definitely show up in the finished piece.

My favorite method of doing basic stripping is to spray the area to be stripped the color that you want the strip to be (see Photograph 7). Once this is dry using stripping tape in the width that you want your accent stripe to be, proceed to lay out your stripe design. Be sure to use stripping tape because regular masking tape has a tendency to bleed along the edge and then you would have to start all over again.

Now spray either the body color as in Photograph 8, or the next strip color and you can have as many different strip colors as you wish and as many widths as you care to apply.



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After applying the body color, very carefully remove the stripping tape before the paint is completely dry. Be extremely careful not to remove the body color as you remove the tape. If by chance you do lift the body color you can gently press it back down with your finger. Again remember to always use one brand and type of paint all the way through your refinish job.

If you don't want to spend the time or don't have the time to do the painted striping, you can use a pin stripping tape available at your local auto supply house. These do work very well for your most basic stripping, but you should know that when they are being applied they do stretch. What can happen is after they are applied and you bring your customer in to see the

finished product the stripe is laying on the floor (been there and done that)!

So now we have completed the body of the safe and the interior (see Photograph 9), move the safe out of the way and cover it with a tarp of plastic to keep it clean while we work on the door next month. See ya! **RL**



**7. My favorite method of doing basic stripping is to spray the area to be stripped the color that you want the strip to be.**



**8. Now spray either the body color or the next strip color.**



**9. Now we have completed the body of the safe and the interior.**



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***Exit Devices.***

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# The National Locksmith's

## March 1998 Planning Calendar

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<b>1</b>	<b>2</b>	Lockmasters' CCTV Course Nicholasville, KY 1-800-654-0637	Lockmasters' CCTV Course Nicholasville, KY	Lockmasters' CCTV Course Nicholasville, KY	IDN Hardware Sales Trade Show — Ypsilanti, MI 1-800-521-0955 x 203	Lockmasters' Automotive Opening Nicholasville, KY 1-800-654-0637  IDN Hardware Sales Trade Show — Ypsilanti, MI
Lockmasters' Automotive Servicing Nicholasville, KY 1-800-654-0637  IDN Hardware Sales Trade Show — Ypsilanti, MI	Lockmasters' 5 Day GSA Training Oakland, CA Automotive Servicing Nicholasville, KY	Lockmasters' 5 Day GSA Training Oakland, CA Advanced Picking Nicholasville, KY	Lockmasters' 5 Day GSA Training Oakland, CA Advanced Picking Nicholasville, KY	Lockmasters' 5 Day GSA Training Oakland, CA Push Button Manipulation Nicholasville, KY	Lockmasters' 5 Day GSA Training Oakland, CA Advanced Impressioning Nicholasville, KY	Lockmasters' Advanced Impressioning Nicholasville, KY  Ozark Prof. Locksmith Assoc. Annual Retreat & Clinics Eureka Springs, AR 501-524-3660
Ozark Prof. Locksmith Assoc. Annual Retreat & Clinics Eureka Springs, AR	Lockmasters' 3 Day GSA Red Label Training Oakland, CA 1-800-654-0637	Lockmasters' 3 Day GSA Red Label Training Oakland, CA	Lockmasters' 3 Day GSA Red Label Training Oakland, CA	Lockmasters' Electronic Safe Lock Course Oakland, CA 1-800-654-0637	Lockmasters' Electronic Safe Lock Course Oakland, CA	Lockmasters' Electronic Safe Lock Course Oakland, CA  Mark Bates Associates Lever Lock Picking Training Nicholasville, KY 1-888-622-5495
Lockmasters' — Electronic Safe Lock Crs — Oakland, CA MBA — Lever Lock Picking Nicholasville, KY 1-888-622-5495  S. Lock Buyers Trade Show St. Petersburg, FL 813-541-5536	<b>23</b>	<b>24</b>	<b>25</b>	Master Locksmiths Association of NJ Annual Lock and Security Show Somerset, NJ 973-267-8884	Master Locksmiths Assoc. of NJ Annual Lock and Security Show Somerset, NJ  Midwest Trade Show Kenosha, WI 414-835-0444	Master Locksmiths Assoc. of NJ Annual Lock and Sec. Show Somerset, NJ  Midwest Trade Show Kenosha, WI
<b>29</b>	<b>30</b>	<b>31</b>				

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# BUSINESS BRIEFS

## Lockmasters Updates GSA Red Label Class

Lockmasters' Red Label G.S.A. class certifies its students on the Mas-Hamilton X-07 lock. Lockmasters has now updated this class to include a complete installation of the Lockmasters' 5100 SCIFLock with X-07, for Sensitive Compartmented Information Facilities.

For a free copy of the 1998 course schedule call 1-800-654-0637, ext. 200.

## AAble Receives Patent

AAble Locksmiths of Ozone Park, NY, has received a patent for its Ford 8-Wafer Ignition Removal tool kit. The tool allows the locksmith to remove all Ford 8-wafer ignitions, including the Mercury Villager and Nissan Quest, to the on position in less than five minutes. Locksmiths can fit the key from the numbers on the wafers, then re-install the same lock with no damage.

## Smith Named Eastern Regional Sales Manager

Rutherford Controls, Inc. welcomes David S. Smith to their ranks as the new Eastern Regional Sales Manager. Mr. Smith, who joined Rutherford November 1st, is highly regarded in the industry for his wealth of expertise in electric locking and contract hardware.



**David S. Smith**

## ISC Expo/Chicago '98

More than 2,500 industry professionals are expected to converge upon Navy Pier (Chicago, IL) when the inaugural



International Security Conference & Exposition (ISC EXPO) / Chicago makes its scheduled run May 31 through June 1, 1998.

For information visit the web site at: <http://isc.reedexpo.com>; or contact ISC EXPO Customer Service at: 203-840-5602.

## Medeco Announces New Deadbolt

Medeco Security Locks Inc. of Salem, Virginia has acquired the worldwide, exclusive license to manufacture and distribute a highly innovative deadbolt. This product, which will be branded as the KeyMark deadbolt, was originally designed and developed by inventor, Dave Florian, of Select Hardware Corp.

## Brinks in Retail Safe Market

Sisco recently announced an agreement to make fire and anti-theft safes under the Brinks Home Security name. The entry of Brinks Home Security brand into the home safe market should help mass merchants and other retailers find new profitability in the product category, according to the CEO of Sisco.

## Hirsch Electronics Appointment

Hirsch Electronics Corporation announces the appointment of John Coker to Manager National & Corporate Accounts. Among his duties, Coker will develop customized programs tailored to the needs of the individual account.

## Armor Appoints VP Sales & Marketing

Armor Safe Technologies is very pleased to announce the

recent addition of Gary Wilkins as their new Vice President of Sales and Marketing. He had extensive experience in the Security and Cash Handling industry while at Brandt, Inc. and Rowe International.

## Keyes Named President of MSP Centre

Sean DeForrest, president and chief executive officer of American Security Distribution, recently named Fergus Keyes as president of MSP Centre in Canada. Keyes replaces James Negri who was brought in as temporary president during American Security Distribution's May 1996 acquisition of MSP Centre.

## Security Lock

Security Lock has opened a large warehouse and service center in Las Vegas, NV.

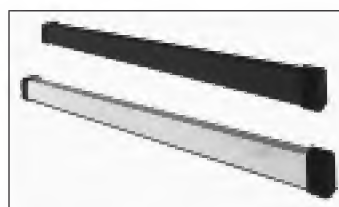
A new catalog with Von Duprin and LCN products is also available from Security Lock Distributors.

Tom Rubenoff has joined Security Lock Distributors as a member of their access control products technical services group.

For additional information call: 800-847-5625, Fax: 800-878-6400; e-mail: [SECLOCK@IX.NET.COM](mailto:SECLOCK@IX.NET.COM) web: <http://www.seclock.com>

## SDC New Exit Sense Bar

Security Door Controls' new heavy duty PSB560 Sure



**Security Door Controls  
Sure Exit®**

Exit® request to exit sense bar utilizes a new pressure sense technology which allows immediate release of EmLocks for uninhibited egress. This eliminates perceptible movement and requires no prior knowledge to exit through a door.

For further information (805) 494-0622 or fax: (805) 494-8861.

## Radionics Welcomes Thurston Back

Radionics Inc., is pleased to welcome back Roy Thurston, who has returned to Radionics as Eastern Area Sales Director. Roy has many years of experience in the security industry. Most recently he held the position of Vice President of Sales and Marketing for UPLINK Security.

## American Security Distribution

Dennis Jenkins has accepted a new position at American Security Distribution as President of Dealer Services. In his new position, Dennis will be concentrating his full time efforts in developing programs similar to the educational correspondence course.

## New Stanley Product Manager

Mark Johnson of Bristol, Connecticut has been named a Product Manager for commercial hardware. Johnson will be responsible for new product development for commercial hardware products including commercial and residential hinges, sliding and folding hardware and related products.



**Mark Johnson**

TNL



# KEY CODES

## GM 10 Cut Codes 6000-6999

Spacing and depths using Universal Micrometer Card #58.

	1	2	3	4	5	6	7	8	9	10
Spacing	.1850	.2775	.3700	.4625	.5550	.6475	.7400	.8325	.9250	1.0175
Depth	.315	.290	.265	.240						



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### HPC 1200 CM

Code Card - CF215  
Cutter - CW1011  
Stop - 1054R Tip Stop  
(Ford 10-cut)

### Framon

Cut Start - .216"  
Cut to cut - .092",  
Spacing Block #3  
Cutter - FC8445  
Key Clamping - Lay  
spacing clip F2MS552  
flat on left side of vise  
and align from tip.

### Curtis

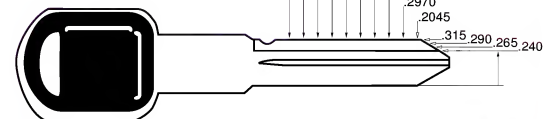
Cam - GM6  
Carriage - GM6A

### Key Blanks

B&S 5995936  
Silca GM37(EP)  
Curtis B82  
Ilco P1102  
Jet B82(PH)  
EZ B82  
ESP B82



Key Profile




6000	2323343224	6037	2121124342
6001	3221124333	6038	3221343344
6002	2112122313	6039	2433433442
6003	2234343342	6040	3121221123
6004	2433443342	6041	2212123342
6005	2233233243	6042	2324332234
6006	3432322123	6043	3322123324
6007	3223344312	6044	2112233422
6008	3343122124	6045	2123233432
6009	2124334344	6046	3421212113
6010	3344342323	6047	2434343342
6011	2323443432	6048	2211212434
6012	2121213434	6049	3344342322
6013	3221233442	6050	2112211232
6014	3221233434	6051	2134433444
6015	2121343432	6052	2233223432
6016	2112112332	6053	2134343442
6017	2322134344	6054	2121211243
6018	2233432213	6055	2121212433
6019	3322312123	6056	3221213433
6020	3233231224	6057	2134433442
6021	2232213434	6058	2121233444
6022	2212121344	6059	2211212333
6023	3223232342	6060	2121213432
6024	3431223342	6061	3233431222
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6028	2112232432	6065	2213434434
6029	2323433444	6066	2122121344
6030	2232334322	6067	2112121233
6031	2124343324	6068	2334434233
6032	1343443344	6069	2212124343
6033	3344332113	6070	2332343442
6034	3342122123	6071	2132232334
6035	2112121242	6072	2234332213
6036	2323233422	6073	2233434324





6074	2112233424	6151	2323233424	6228	2323221343	6247	2332434342	6266	2332213442	6285	2334431224
6075	2212112333	6152	3321212213	6229	2123343324	6248	2112112433	6267	2121323234	6286	2324334434
6076	2323232112	6153	3221211232	6230	3232321124	6249	3323212234	6268	3122332324	6287	3344344323
6077	322323212	6154	3343423224	6231	3323232123	6250	3323231212	6269	3321223342	6288	3342122324
6078	2322334212	6155	3322122312	6232	2232323434	6251	2122324332	6270	2323344324	6289	2323223442
6079	2112213434	6156	3323342122	6233	3323211213	6252	2323323122	6271	2212112134	6290	2234433432
6080	3223221343	6157	2211223443	6234	2332322344	6253	3322322313	6272	2323343122	6291	2332211243
6081	3323321124	6158	2233232313	6235	2321212113	6254	2211211242	6273	2211243342	6292	1343344342
6082	3322323123	6159	3322112332	6236	3234343442	6255	3221122313	6274	3212233432	6293	3233221342
6083	2312233234	6160	2212234432	6237	2122334313	6256	2212434334	6275	2343443324	6294	2323223433
6084	2334432213	6161	3234433224	6238	2213233432	6257	2322312113	6276	2334322324	6295	2233443123
6085	2121344334	6162	2123343432	6239	3221212434	6258	3342112123	6277	2322134434	6296	3342332213
6086	2211213434	6163	3421212124	6240	3423232324	6259	2322332433	6278	3322124342	6297	2122121342
6087	1344334434	6164	3232332124	6241	3423343442	6260	2312232334	6279	2334342112	6298	2134343344
6088	2121124332	6165	2434433234	6242	2211223442	6261	2233443422	6280	2334334212	6299	3431221224
6089	2322112132	6166	3221121342	6243	3231212124	6262	2112121243	6281	3321212123	6300	3343434212
6090	2122312113	6167	3211221124	6244	3223443432	6263	3223434344	6282	2112123234	6301	3323223244
6091	2323243324	6168	3343431213	6245	2334343423	6264	3322134432	6283	3231221213	6302	3233221344
6092	2332232434	6169	3232112123	6246	2112234342	6265	3223343224	6284	2112121232	6303	2323234344
6093	2322124334	6170	2112134334								
6094	2221124334	6171	2233243434								
6095	2324334432	6172	3322332112								
6096	3233231222	6173	2332321123								
6097	2233423342	6174	3223243342								
6098	2232433442	6175	3122323324								
6099	2312122334	6176	3323221232								
6100	3322323124	6177	3233231213								
6101	2112112432	6178	3233232124								
6102	3421122334	6179	2132233434								
6103	2112134342	6180	3243323224								
6104	2334433244	6181	3221323234								
6105	2232323442	6182	3122121123								
6106	2323223444	6183	2112121342								
6107	2343322113	6184	2112323342								
6108	2121121244	6185	2234334434								
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6111	2112121344	6188	3233223442								
6112	3321221124	6189	2112234334								
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6114	2334332124	6191	2433221123								
6115	2322332113	6192	2233234344								
6116	2323434432	6193	3321212234								
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6120	3221343442	6197	2112121244								
6121	2232213442	6198	3223433444								
6122	2212234334	6199	3433221243								
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6124	2122334233	6201	3321122123								
6125	2323231213	6202	2343322124								
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6127	2112122344	6204	3322324342								
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6130	2121212132	6207	2233443222								
6131	2121211244	6208	3212211213								
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6133	3223233422	6210	3232322342								
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6142	3433212124	6219	2344344334								
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6144	2122344334	6221	2211212134								
6145	3343443224	6222	2332231212								
6146	3211223344	6223	3221212134								
6147	2233243344	6224	2332312213								
6148	3323122324	6225	3232233213								
6149	2121212434	6226	3223343422								
6150	3233221232	6227	3233221343								



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6304	2312121124	6381	2334343123
6305	3323223443	6382	2332323124
6306	3233221244	6383	3432212113
6307	2323344313	6384	2332323244
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6534	3423221124	6611	3232343442



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6612	2323243442	6690	2232234344
6613	2112323324	6691	2233433212
6614	1343434432	6692	2134332234
6615	2321223342	6693	2332121213
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# NATIONAL

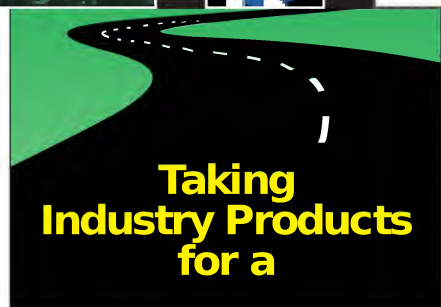
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6844	2334211224	6922	2332323443
6845	2233443234	6923	2323343422
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6919	2132322113	6997	2233434312
6920	2212123344	6998	3322121323
6921	2233432324	6999	2112434334





**TEST DRIVE!**

## Cylinder Shield and Ciplite



### Cylinder Shield

As you know, mortise cylinders in general probably receive more abuse and punishment than any other lock besides a padlock. This is due greatly because most mortise cylinders are utilized in commercial applications, often in conjunction with an Adams Rite lock installed on a store front door. These locks are exposed to dirt, snow, rain, sleet, sand, glue, gum, toothpicks, and wrenching, to name just a few. Because of this, some form of protection is desired.

There has been many forms of mortise cylinder protection over the years, and most performed quite well. Some were easy to use and install, while others required special tools to install. The Cylinder Shield is nothing more than a new design on an old idea.

Constructed of solid aluminum, the Cylinder Shield will work on most standard mortise locks. It offers a virtually wrench proof collar that protects against an attempted burglary as well as the natural elements. The Cylinder Shield has a 1/8" thick rotating cover that totally protects the entire mortise lock from dirt, grime, cleaning chemicals and weather.

There is nothing to installing a cylinder shield. Simply insert the mortise cylinder in question into the shield, thread the cylinder into the door and lock in the usual manner. Once installed, the Cylinder Shield can be rotated 360° to thwart a wrench attack. The outside protective cover easily pivots allowing key insertion or cylinder protection.

The Cylinder Shield cover will prevent the elements such as weather from encroaching the keyway, however it does not prevent someone from tampering with the lock by inserting glue, gum or toothpicks. The mere presence of the shield, however, may deter such occurrences. The price of the Cylinder Shield is \$32.95.

For more information on the Cylinder Shield contact: Cylinder Shield, P.O. Box 100372, Nashville, TN 37224-0372. Phone: (615) 292-5537. **TNL**

#### IN SUMMARY:

**DESCRIPTION:** Cylinder Shield is a virtually wrench proof mortise cylinder collar that protects from an attempted burglary as well as the natural elements as well.

**COMMENTS:** The mere presence of the shield may deter such unwanted occurrences such as vandalism.

**PRICE:** \$32.95

**TEST DRIVE RESULTS:** Made from solid aluminum, the Cylinder Shield is a snap to install and use.

### Ciplite by J P Tools

Every once in a while a product comes out that incorporates a slightly new approach to an old idea. The Ciplite is a flexible light specifically designed for car door inspections. To use it is slipped between the door panel to illuminate the interior. Now, that's nothing new, there are several flexible lights designed for just that purpose, but as I said, some products use a slightly different approach to an old idea. The Ciplite is designed to be attached directly to the car opening tool! This eliminates the need to work the car tool with one hand while holding the inspection light with the other. It also eliminates the need for suction cups or magnets to hold the light.

The Ciplite consists of a five foot flexible 22 gauge wire cord with a Christmas tree bulb at one end and a 9-volt battery cap at the other. The light comes with two extra bulbs. Along the flexible cord are three plastic adjustable attaching straps. To use, simply wedge the car door, attach the Ciplite to the car opening tool being used, insert a 9-volt battery in the battery cap, position the car opening tool in the door and there will be light right where you need it.

The Ciplite worked quite nicely. The bulb is fairly bright, however, it is not a halogen or krypton. That is not a bad thing because you do not need to pay \$15.00 or more for replacements.

The only negative comment I have is that you need to have a 9-volt battery handy. When the battery is plugged in, the light is on. There is no on/off switch. This is good because that means there is no switch to wear out, except you do need to have a battery handy every time you go to use this tool. The battery can be stored in the cap by turning it over, but I don't know how long it will remain there when stored in a tool box.

The price of a Ciplite is \$29.95 plus \$4.95 shipping/ handling.

For more information on the Ciplite contact: JP Tools, 149 Albright Lane, Gallatin, TN 37066. Phone: (615) 230-8641. **TNL**

#### IN SUMMARY:

**DESCRIPTION:** The Ciplite is a flexible light specifically designed for car door inspections.

**COMMENTS:** Ciplite is designed to be attached directly to the car opening tool.

**PRICE:** \$29.95

**TEST DRIVE RESULTS:** The Ciplite worked quite nicely. The bulb is fairly bright and it places the light right where you want it.